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Universities Quarterly

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PSYCHOLOGY AND THE UNIVERSITIES

Articles by

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Dr. John D. Sutherland
Professor L. S. Hearnshaw
Professor John Cohen
Alec Rodger
Professor A. W. Wolters

Reviews by

Sir Percival Waterfield
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Etc.

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NOTES

In the news

The universities are still in the news, and in the editorials. Everybody seems to be quite clear that universities matter immensely. The Headmaster of Eton has even said that " modern society without universities would be impossible ". Fundamentally, too, everybody seems to have the same idea: universities must measure up to the times, but they must see that they remain universities.

Standards

This last point is commonly put by saying that they must " keep their standards "; and this is not in itself a bad way of putting it, except that it is in danger of being interpreted too narrowly. It is commonly taken to mean simply that examination tests must be maintained with the fullest vigour; and, of course, that students who cannot pass these tests must be excluded.

This is true, no doubt, and important. But it is obviously not the root of the matter. You cannot do more than a certain amount of good to the universities by improving examinations. What matters is that the universities should manifestly stand for the right things, and that the schools should rouse the intellectual interests of their pupils and enable them to see, among other things, what the universities are trying to do. Every boy and girl will then know whether the university is the right place for him. There will then be enough students of the right kind, with university accommodation at anything like the size now planned, to keep the examination tests at least where they are without anybody giving much attention to them.

This is already clear. Even the minority of critics who argue that standards have fallen do not claim that, as judged by examinations, they have fallen very much. And nobody can doubt that the schools are getting better and better at steering the right pupils in the direction of the universities and other colleges of higher education. Very few people can be in any doubt but that the schools, which have made immense progress in the last ten or twelve years, can go much

further yet; and the resulting recruits to the universities will at least be numerous enough to press standards upwards. Even the most conservative can hardly deny that at something like their present numbers universities can maintain a good level of work without difficulty.

Schools and universities

Teaching, and the way of life in schools and universities, are the root of the matter. Much must always depend upon the schools. It is impossible for students at the university to do what they now do, in the time which they now give to their courses, unless the schools continue to play a very exacting part. As American experience shows, it would be easy for the schools, intellectually speaking, to fall two years behind. If they did this and the normal university course became four years instead of the present three, each generation of students would be one more year off the labour market; and it would still, even with that extra twelve months, be one year behind in standard of work. There are already signs of danger. The shortage of science mistresses in girls' schools is now making it extremely difficult for girls to secure admission to three-year scientific courses in the universities, or to the medical schools. This is bound to give rise to an awkward spiral. There are likely to be fewer science mistresses still in the near future, and therefore yet fewer sufficiently trained girl students. In a few years only girls of the most exceptional ability will be able to qualify for science courses.

With the boys, the position works out a little differently, but is perhaps even more serious. In the past men of first-class scientific ability have been poured into the schools. At present the signs are that it is increasingly difficult to induce any trained scientists at all to take up schoolmastering. When there is a shortage, only boys from the schools which have the masters can have a chance. Loss of quantity and quality is then unavoidable, and serious inequity as well.

Industry and the universities

At the end of November the Federation of British Industries called a week-end conference, at which some fifty representatives of universities met an equal number of industrialists. There can be no doubt that the conference technique richly justified itself. In these days dons and men of industry no longer regard one another,

in the Byronic words quoted by a Vice-Chancellor in an extremely witty after-dinner speech, as " mad, bad and dangerous to know ". In general they see too much of one another nowadays on their ordinary occasions for that, or anything like that. But a well-organised conference like this enables atmospheres to meet, and universes of discourse to mingle. And that is quite a different matter from individual contacts.

The main interest of the conference proved to be in education, and only secondarily in research. Even in the technical field what was wanted by industry was a well-trained scientist or a well-trained engineer; it did not matter much what *sort* of scientist or engineer. As for the higher management, it seemed to be felt that most existing university courses would serve; what would stand by a man best in the course of his career was to have done his university course thoroughly and well, and it did not much matter what exactly his studies had been. It was not clear whether this upshot of the conference surprised anyone particularly, though the high degree of agreement was unmistakable. But if there had been agreement fifteen or twenty years ago, it would have been in a different sense.

It could not of course be clear whether the university men and women present could really speak for the universities as a whole, or the industrialists for industry as a whole. But the conference was a beginning.

Two unresolved problems

Both sides went away from the conference with two especial worries. Everybody showed the most acute concern, a concern which expressed itself again and again, about the shortage of science masters in the schools. The conference found itself unable to decide whether the shortage would continue to be acute for another two or three years only or would go on indefinitely. How long would there be other available employments for trained scientists which could effectively outbid the schools? A shortage for eight or ten years in all would be very serious indeed; a shortage for an indefinitely long period could only be disastrous. The action which would need to be taken would be different in the one case from the other; but taken it must be. It should be possible to determine the facts, and to let them be known.

The other cloud in the sky concerned the arts graduate. It was agreed that he was wanted in industry, but there was clearly a

recalcitrant problem about him: how to work him in in his first few years. This must always have been a problem to the business man who sent his own son to grammar school and university; but if the boy had to go through the mill at a rather advanced age, he at least knew that the eye of the management was upon him. Today, though a good deal of the most promising business material is undoubtedly in the universities on the arts side, there are real and unresolved difficulties here. Some firms, especially in non-technical business, employ the arts graduate freely. But many firms who would like him do not see how to work him in; and so long as the difficulty remains the great mass of firms will not be induced to want him.

Grants for students

It is suggested in some quarters that it would exercise a salutary effect on the universities if the numbers of grants to students were substantially lower. It is not easy to believe that this could be so. The universities are free to select their own students and to determine the numbers of students they will accept. It is universally recognised that if a would-be student cannot get a place, he cannot have a grant. On the other hand nobody at the universities wishes to see a good and keen student denied his opportunity merely for financial reasons. It may be that this will be unavoidable for a time because of the economic difficulties of the nation. As the grants to war-service men cease, it would be necessary, even allowing for some increase in state scholarships, for the number of grants by local education authorities to become substantially larger if all good students, well above the standard of the lowest student accepted, are to have grants available at need. A sufficiently large increase may prove to be unacceptable to the authorities concerned on economic grounds. The signs are that it will be. But it is well not to be deceived. A larger or smaller number of good and keen students, from some parts of the country or from the whole of the country, will lose their chance of university life; and the universities will be so far the losers.

The late Sir Michael Sadler

An eminently readable memoir* by his son has brought back to the minds of many readers memories of their affection for this great

* *Michael Ernest Sadler*, a memoir by his son Michael Sadleir (Constable, 20*s*.)

man. He had in outstanding degree many of the gifts which some, though as is fitting by no means all, of the universities like their vice-chancellors to have. His were gifts no less of intellectual grasp than of temperament and of vision. Even in the smallest social and administrative affairs he had distant aims ever in view; and those aims were conditioned by a life-long devotion to the study of the problems and achievements of education. He was convinced that in educational matters, as in other affairs which touch human nature closely, mistakes are made, if they are made, at a very early stage—long before those who are engaged in the day to day work can well have any clear perception of what is going on. He thought that such a mistake was made in his time.

Yet in public he never lost his buoyancy, his untiring energy, or his love of encouraging the young and the hopeful. Indeed it may be that he gave his most inspired and effective service to his generation and to the future, several years after the die was cast against him in Whitehall, when he was Vice-Chancellor of the University of Leeds.

" The Crisis "

" The Crisis in the University " is still just as conducive of argument as it was when the book first appeared. At the Home Universities Conference in December, Sir Walter Moberly described himself as in a position similar to a Junior Minister called before the Cabinet to justify his plan and to show how it would work. This in fact was his day of reckoning—even though, as no doubt with a Junior Minister, the document to which he spoke was not entirely an individual production but was written after much consultation with others. In opening the discussion, Professor L. J. Russell raised an issue which the conference did not readily follow up; he thought he detected a certain " arrogance " in the Christian point of view which he thought Sir Walter represented. He could not accept any implication that non-Christians necessarily led inferior lives; in many cases their lives were not poorer but " richly other than Christian ". He detected in Sir Walter a desire, which he could by no means welcome, to " Christianise " the universities.

The Conference as a whole clearly felt that Sir Walter had not wished to press upon the universities any specific solution, but that he had been rightly sensitive of a vacuum in the vital centre of

university life which something affirmative was required to fill. The fear was expressed here and there—but only here and there—that if something else were not forthcoming the vacuum would be filled by Communism. The general view seemed to be that it was very much not the task of a university to provide a young man with a " philosophy of life ", but that something was wrong if too many young men were leaving the universities unfortified by a real clarification and implication in their own minds of what they themselves believed to be the principles of the good life. The discussion thus left not a solution but a problem.

General education

The second session of the Conference seemed to indicate that anxiety about the " general education of students " has widened and sharpened in the last year or two. Suggestion after suggestion was brought forward about what might be done to retain the very great benefits which come to students from the right kind of specialisation but at the same time to fight the very real evils which seem to accompany it and which are not unconnected with " the crisis ". Interesting experiments in various universities were referred to or described; and the conference was left with the feeling that the university world knows too little of the enterprising things which are going on within itself. Speakers referred to the situation as " having gone so far that we have got to do something serious about it ", and the conference showed no disposition to moderate their expressions. Both Sir Lawrence Bragg and Lord Lindsay spoke of " two languages "—the language of the science student and the language of the arts student; very few people in the universities today could think in both languages. Each university consisted of two worlds which were unintelligible to one another.

There was some discussion of which of the two languages was least incompatible with a sound culture, in which there was occasionally a sign of a fairly high degree of self-satisfaction on one side or the other. But the general feeling seemed to be that either there ought to be one language, or that everybody in a university should be able to speak both. Lord Chorley urged that the Vice-Chancellors' Committee should take steps to have an annual report published on the way the problem is being tackled in the several universities, so that everyone could profit from every experiment.

THE UNIVERSITIES AND PSYCHOLOGY

Introductory Note

The illusion has certainly died hard that, whatever else we may or may not know, we at least know what is going on in our own minds. What was needed to kill this illusion was a vivid picture of the mind as a strange, undiscovered country in which the most extraordinary things took place; and this we have certainly had in our generation. Not all that Freud and his successors have told us has gained unqualified credence. But not all has been rejected; and enough indeed is left to have convinced us for ever that our minds have not quite the translucent character that some classical philosophers thought they had.

An exacting science

Once, of course, the dam has been burst, the flood water has carried all before it. In our personal and political lives we no longer claim to know our own motives, but confess ourselves unprotected against the most seemingly preposterous charges about the springs of our actions. In the sphere of speculation and research we admit at once and without hesitation that a mind is undoubtedly a much more complicated affair than a mere body, and that the scientist will have to make the very most of all his tricks if he is to throw much light upon its nature.

Some people say that what gives to scientific study its most effective fillip is a bit of practical success: success, that is, not in finding out something but in *doing* something. We are all physicists now, they say, because an army of scientists and engineers made a very large bang somewhere in America during the war. Similarly, we are told, the study of the mind gave great dividends, in therapy and in the re-deployment of our short supply of natural ability, when we were fighting for our lives and such things were worth their price; hence those among us who have resisted the lure of physics, or have found its mathematics too difficult, are now all psychologists.

But this is less than just to our human curiosity. There has as yet been no bang in the mental world as spectacular as that produced by the chain-reaction in New Mexico; and, let the truth be told, if pure love of knowledge can ever move us it is in this sphere that it will do so.

> The mind is its own place, and in itself
> Can make a heaven of hell, a hell of heaven.

We should all of us very much like to know how it does it.

Rapid development

It is not surprising that there are now in the home universities ten chairs of psychology, with perhaps more in the offing; and there is not unnaturally a widespread desire on the part of academic laymen to wish the young departments well and to know a little about how they, and of course their older and more experienced brothers, are getting on.

We have never suffered very much in this country from the supposedly Teutonic fault of talking methodology for more than half the book. Even here there will always be philosophers to warn us in any scientific enquiry that, as what we are proposing to study is abstract anyway, until we are clear about our method we shall not be able to identify our phenomena. But in spite of such warnings we have the habit of starting off provisionally and returning to review our first principles from time to time; and by doing so we do not fare too badly. Indeed it sometimes seems that it is in the really established sciences, like physics itself, that the really stormy clouds gather about the first principles. Here one gets the impression that if the enquirer can find a formulation of basic laws which does not represent them as flatly contradictory he is fortunate indeed. Or perhaps he would be unfortunate ! It may be the very menace of contradiction which nourishes the untiring vital force.

Be that as it may, six university psychologists have consented in this issue to try and tell us some of the things we want to know about their study; and in doing so they have not unnaturally cast a glance aside on a number of problems new and old, in the fields of others as well as their own. Perhaps it may be allowable, out of a wealth of ideas, to choose for a little attention here two points only, widely different from one another but both of general and timely interest.

The honours school

Professor Hearnshaw has asked himself, in his own particular context, what is necessary to a good honours school in a university; and he has answered " a fusion of thoroughness and breadth ". Such a school must provide, he says, a vigorous training in a particular discipline, *e.g.*, the use of language, mathematical reasoning, experimental method, or logical analysis. But also it is necessary for its subject matter to have a certain " bigness " so that it is capable of " permanently enlarging the comprehension and influencing the thinking of those who pass through its discipline ".

It will be generally agreed that " some of the older university disciplines are admirably fitted to fulfil these requirements ", and many pupils have derived benefit in the grand manner. But a great deal must depend on the teaching. The subject matters of Greats or of the honours school of chemistry, for instance, certainly have the requisite bigness; but it has not been difficult in recent years for an ancient historian or a chemist, or for the matter of that a philosopher, to let his studies appear to the undergraduate to have a narrowly technical and even pernickety nature. The temptations to the university teacher to acquire for himself the last touch of highly specialised technical skill in some corner of his subject are very great indeed; and it may or may not be that the acquirement of such delicately poised skill and bigness of conception in teaching do not go well together. Perhaps we do not really know. It may be that not enough people have tried hard in latter generations to run the two things in double harness. In any case it is good to see the votaries of a young science reminding themselves that neither rats nor quotients, taken alone and concentrated on to the highest power, will enable a young man to gain for himself what a university should be expected to give.

In the past psychology, and its close kinsman sociology, may have suffered here and there from a too slavish cultivation of what was supposed to be the secret of the success of physics. If so there could be no better chosen time than the present for the psychologists to be reviewing their own plans. Today even physics is not entirely above criticism to its admirers. Physicists appear to have landed themselves, and us with them, into situations which they feel themselves not entirely well equipped to handle. Have they stepped beyond the extreme verge of the powers of the human mind? Or is there just some defect in the established education? We cannot finally judge. But on all grounds this is a good time for the psychologists to be keeping their heads in building and testing their own programmes of education and research. Who knows? They may well teach us all something.

Clinical study and pure science

The second point is a very different one. Professor Sutherland, who thinks that psychological study has in one respect at least suffered under very grave disadvantages in the past, seasonably emphasises that he does not regard the medical sciences as " applied

sciences". They may be, he says, as "purely" scientific as any other natural science, and they are as much in the front line of the advancement of pure knowledge. Generally speaking, a man will not let you study his symptoms unless he is ill, and he will not let you operate on him unless he thinks you will cure him. Yet such study and such operating are necessary to the advance of medical knowledge; not just necessary for the improvement of the techniques necessary to apply fundamental principles already known, but necessary to the discovery of fundamental principles. When you have demonstrated and established that a principle holds in regard to rats, you are not just left with a problem of "applied science" in medical or surgical research. You *do not know* what the fundamental principles are for human beings. You have a clue, from your experimentation with rats; but not much more. A little new insight, perhaps; but that is about all. What is more, you cannot experiment with a human being quite as you can with a rat. You have got to cure him, and to keep that aim in the forefront all the time. But though you are under some disadvantage, you may be still seeking pure knowledge. You may, in some cases, be merely finding out something about a technique; but in many cases your enquiry will be the purest science.

Professor Sutherland has a special point he wants to make. He rightly emphasises that in the past too few students of psychology have been helped by their studies to know anything about *persons*; and some degree of clinical or quasi-clinical study must surely be essential to the training of any psychologist. But the point is also well taken as a more general one, even if it does apply in extreme degree in the psychological field. We are too much apt to forget, perhaps, that not every pure study of nature can use the technique of experiment in its full rigour. In some cases we can only watch; we cannot always even get nature "to do it again". We cannot interfere with the heavenly bodies; but astronomy has good standing as a pure science. We can interfere a little here and there, with the human body, but not as much as we should like in the interests of knowledge. But medical enquiry may be pure science—though whether there is enough such scientific medical enquiry at present going on in our universities is another matter. Certainly it was one of the main aims of the Goodenough recommendations to ensure more of it.

When it comes to the study of the mind, some psychologists have

been thought to interfere with the minds of their own children more than they should; and here you have the problem in an extreme form. Most of us are even less willing to have our minds played with in the interests of science than our bodies. The sick will be willing in some measure, and subject to the hope of comfort or cure. But it may well be that it is even more difficult to argue from a sick mind to a healthy mind than from a sick body to a healthy body.

In truth psychology, like sociology, must always in large measure be a matter, not of experimenting, but of watching. But we need not therefore deny that it is a science. We should hope that the student of the mind should not have the worst of two worlds. He has enough difficulties in the nature of the case. He should not in addition be denied the encouragement and assistance due to the pure engineer.

The prospect: education and research

In conclusion, many will be surprised to glimpse, from Mr. Rodger's article and elsewhere, the remarkable number and variety of tasks which fall to the trained psychologist in our modern society. Whether or not we are now on the threshold of an era of striking discoveries about the nature of the mind, contributing to a large advance in new knowledge—and some will perhaps gain from these articles an impression that this may be so—it will probably be widely agreed that it is very much in the interests of us all that a sizable proportion of the men and women doing these jobs should have as good an education as our generation can offer. Here, as in medicine, is no good place for a second-best—meaning by second-best the best devised technical instruction which can be given to persons who have missed, for one reason or another, a good education. Such instruction can be devised and given in many fields with astonishing skill, and nobody has contributed more to success in this matter than the psychologist himself. But he who would study the mind, with the imagination and judgment which is necessary to good achievement in any science, should have a wide acquaintance with the mind's high manifestations in the established fields of human endeavour; and he should certainly have, just at the time of his fullest development in intellectual power, every opportunity for that rich and vitalising human intercourse which it is the great privilege of universities to cherish.

I. PHILOSOPHY AND PSYCHOLOGY

By James Drever

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To say that relations between philosophy and psychology are a little distant just now would be to suggest a coolness which does not in fact exist. Yet collaboration is rare and even communication is not always easy. Some philosophers, it is true, have been showing an interest in the more verbal branches of clinical psychology; but in the psychologist there are few signs of the nostalgia which one might expect in the moderately successful prodigal, or indeed of the defiance with which he set out to make his fortune. In fact, over the past half century, philosophy and psychology have just drifted apart. Why this should have happened is not clear. No doubt it has come about insensibly as the older generation of psychologists trained in philosophy was replaced by men brought up to think in terms of their own discipline. Yet there is evidence which suggests that in another decade or two the whole picture may have changed. For one thing philosophers are beginning to discard the rather naïve picture of the human organism with which they have been so long content. It was a composite affair in which Platonic Cartesian and Kantian motifs could all be distinguished, with eighteenth century empiricism providing its most purely psychological elements. Some philosophers, to be sure, seem to have adopted substitutes constructed on the familiar model. Plato's chariot now has Eros and Thanatos between its shafts and some very odd characters in the dickey. But on the whole it is no longer being taken for granted that because we are human beings we know what a human being is and how it works. Psychologists again, as they read their all too numerous journals, have to admit that mere experimentation may be as barren as mere speculation, and the need for some theoretical structure is becoming apparent. Above all the problem of language is revealing itself as central in both fields. On the one hand our philosophising is a complicated form of linguistic behaviour, and on the other it is its capacity for linguistic behaviour which seems to be the most distinctive characteristic of the human organism. Not *homo sapiens* but *homo loquens*.

Considered in this light, that is systematically rather than historically, the relationship between philosophy and psychology seems to be a peculiarly intimate one, and differs from the relation-

ship between say, philosophy and physics, or philosophy and botany. Language behaviour, which includes philosophising, belongs to the subject-matter of psychology, at least in the sense that semantics or pragmatics may be regarded as in part psychological disciplines. But to study language behaviour scientifically is also to behave linguistically, and the situation thus created seems to demand further linguistic behaviour of a more general or philosophical kind. There is an inescapable circle here which should not give rise to a quarrel over precedence. The philosophical owl and the psychological egg can be derived from one another indefinitely without the process throwing any light upon their common origin. Instead we must recognise that philosophical and psychological problems are to some degree interdependent, and can be solved, if at all, only through common enterprise.

It will be clear by this time that particular and rather definite meanings are being assigned to the words "philosophy" and "psychology", and some definitions are needed. An empirical approach turns out to be rather difficult. If it be suggested that we generalise from writings or activities admitted to be philosophical on the one hand and psychological on the other, we are at once plunged into a welter of claims and counter-claims consideration of which would take a long time. In the end we could only hope for a statement of preference, so we may as well seem dogmatic, since dogmatic we must be.

Philosophy distinguishes itself from science in being more comprehensive and more critical. It is more comprehensive in that it takes into account, or tries to take into account, evidence derived from the moral, religious and aesthetic as well as the scientific fields. It is more critical in that it examines its own instruments, which it shares with other disciplines, to discover their limitations and improve their use. At some stages the philosopher's activity will be synthetic, a bringing together of material from widely scattered sources; at some it will be limited to a study of its own procedures; at some it will be admonitory and issue its prescriptions about the proper employment of certain concepts. But at all stages philosophical activity is carried on by means of signs. It is, in the widest sense of the words, language behaviour. In what we have called the critical stages of his activity the philosopher studies language behaviour, or, if you like, behaves linguistically about language. So too do the linguist, the semiotician

and various other specialists. But the philosopher does not study language behaviour as such and its development in an individual or a society. Rather he aims to discover its scope and limits, or, in and through that part of his activity which we call logic, to improve its effectiveness. What he has to say therefore is relevant both to his saying of it and to language behaviour generally in science and in ordinary communication.

Turning now to psychology the necessity for some degree of dogmatism becomes even more apparent. Ryle suggests in his recent book *The Concept of Mind* that " Much as ' medicine ' is the name of a somewhat arbitrary *consortium* of more or less loosely connected enquiries and techniques, a *consortium* which neither has, nor needs, a logically trim statement of programme, so ' psychology ' can quite conveniently be used to denote a partly fortuitous federation of enquiries and techniques ". If we mean by psychology the professional activities of those people who call themselves, and are admitted to be, psychologists, then Ryle's statement is fully justified. But it may be argued that the present situation is a transitional one brought about by the gradual realisation that there is no distinctive subject-matter to be identified under the term " mental ". Deprived of their original programme, psychologists have sought to answer in a rather *ad hoc* way a multitude of theoretical and practical questions about human behaviour. Sometimes they have been successful, sometimes not. Fortunately on the whole they have contrived to express their findings in such a way as to give their hearers the impression that the sum of human knowledge was being, in fact, increased. But accepting the medical analogy we can take it a stage further. In medicine there are certain basic sciences whose methods and subject-matter can be distinguished within the wider field. So also in the psychological field it is becoming possible to identify certain fundamental studies which may justly be called sciences. Of these, two are relevant to our present discussion—behaviour theory or behaviouristics and semiotic. It may be that there are only two or that one will reduce to the other. Behaviour theory is an attempt to establish general laws, which cover processes like learning, perceiving, motivation and so on. It is distinguishable from physiology, with which it has close affinities, in that its data consist of larger units. It is concerned with the whole organism rather than with the smaller scale transactions like growth and metabolism

that go on within the organism. Logically, it is related to physiology as physiology is related to biochemistry. In the light of Ryle's statement, we might also say that behaviour theory is related to psychology as physiology is related to medicine.

Behaviour theory is still at a very elementary stage. The work of Pavlov and Hull and even Tolman is concerned with very simple bits of behaviour as shown by dogs and rats in laboratories. It will be a long time before its principles can be extended to cover the social behaviour of human beings. But its programme is ambitious enough and it is still too early to judge its capacity.

Semiotic is rather a different kind of study. It is an investigation of signs and their function, but this investigation may be carried out in three areas. We may study the systematic relationship of signs to one another, what Hume called " relations of ideas ". We may study the relationship of signs in use to the things they signify, and finally we may study the relationship between signs in use and the behaviour of the person using them. These three areas have been called syntactics, semantics, and pragmatics. Syntactics includes mathematics and logic. It is a legislative rather than an empirical study. Semantics has some psychological implications, as indeed has the whole linguistic field, and a good deal of empirical observation enters into it. Pragmatics, however, or the study of sign-determined behaviour is inevitably bound up with general behaviour theory. On the other hand sign behaviour, particularly in the form of language behaviour, has become amazingly complex because its instruments have been refined and elaborated over many generations. If we were to wait until the behaviour theorists had built up this system from the level of the maze-running rat to that of a debater in the House of Commons we should need a great deal of patience. Instead it seems better to tackle sign or language behaviour at its own level. It is true that such behaviour is learned and generally motivated and as such belongs to the same general class as salivating or running in a maze. But it shows an intrinsic lawfulness and may be made to yield some principles of a genuinely scientific kind before behaviour theory is in a position to cope with it.

Workers in this field have not as a rule labelled themselves psychologists—the phrase " fortuitious federation " was not without its point. But the unity of the field, and its close relation with behaviour theory, has been clearly demonstrated. Moreover, part of the work being done in it is clearly scientific rather than prescrip-

tive or evaluative. So that we seem to have emerging a new and enormously important kind of study, whatever its label, which has to do with a particular kind of human behaviour and belongs to the field of science rather than that of philosophy.

Now we can get back to the circle from which we started. It is in fact a double circle, or a circle within a circle. Each philosopher who attempts to make a synthesis reacts upon the social-cultural influences to which he has been exposed. It is not often that he thinks himself rationally into a given position; rather he finds himself in a given position or predicament and tries to think himself out of it. He is placed in his predicament by more or less random influences: his upbringing, a book he has read, the intellectual climate of his age. Thinking himself out is a piece of skilled and motivated behaviour. It involves selection, distortion, and rationalisation as well as the sheer logical manipulation of symbols. Thus philosophising forms part of the proper subject-matter of behaviour theory, even though behaviour theory may have nothing yet to say about it. We must look to Freud rather than Pavlov here.

Turning to the other side, the scientist works unselfconsciously and, on the whole, pragmatically. He asks limited questions and accepts limited answers. He takes up the instruments that lie nearest to his hand and discards them only if they do not serve his immediate purposes. The philosopher's activity remains different in kind, and will retain its autonomy however far the behavioural and linguistic sciences may develop. On the one hand, the various philosophic syntheses will be important to scientist and layman alike. To be sure, we do not have to read them any more than we have to read poetry, but our knowledge is apt to remain partial and limited if we do not. The critical examination of our basic concepts on the other hand forms an essential element in scientific progress. The scientist can examine his own basic concepts, of course, but if he does he is philosophising, and experience suggests that he will philosophise less effectively than those who have been trained to do the job. In particular, our basic concepts—or ways of talking—about human beings are in need of clarification and refinement. In this field, above all others, the scientist must look to the philosopher, forgetting, if he can, that from some philosophers, notably Descartes, he has already had some very misleading suggestions.

II. PSYCHOLOGY IN THE UNIVERSITY

By A. W. Wolters

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My part in this survey of the contribution of psychology to the present-day world is to consider briefly the position of psychology in the universities, and the relation of academic psychology to the applied branches. The universities have recently made great advances in the provision for teaching and research in the subject. My memory goes back to a time when there was but little, and when the psychologist was regarded by his colleagues as an oddity. He contributed to the teaching of philosophy and education, but even in these subjects he was not thought to have anything important to say; and, looking back, perhaps he deserved to be so regarded. When experimental methods were introduced in this country they were viewed with suspicion by philosophers and with scepticism by scientists. Both wings regarded Experimental Psychology as a waste of time and money. To-day there are ten Chairs of Psychology, and in several other universities there are promising departments on the way to independence. Philosophers have made very generous amends for their earlier reluctance to see the subject become a natural science. Most of this development has occurred within the past few years, and its suddenness has led to difficulties in providing or finding personnel. A subject which had been persistently neglected for generations was called upon to expand rapidly, and then it became clear how very few people had ever been trained in it, and how many of those who had once engaged in it had been starved into other fields. It seems that some difficult years for British psychology lie ahead, but already there are coming into view those who will fill the gaps and reap the harvest.

At last, then, psychology has been accepted as a full member of the university team. This position has been reached largely through the personal distinction of the pioneer workers; the main reason, however, is one which should cause the psychologist as much concern as pride. There can be no doubt that the awakening of university authorities has been mainly due to the success of applied psychology in industry and education, in medicine and the Services. To the non-scientific world psychology to-day means *applied* psychology—a new technology. To some extent the other sciences are in like case. The physicist is worthy because he has given us

television, the chemist because he could give us better soap. Here is a danger point for the universities, and in the end for applied science equally. All scientists must rejoice to find that their work offers practical advantages to the world, and they profit by the data returned to the parent science by researches in industry and other fields; but they have to guard the position of the pure science, even for the sake of the applied. Faraday did not set out to invent the dynamo; that followed from disinterested curiosity, which must at the time have seemed to many people very trivial. The most important source for successful application is always the disinterested pursuit of knowledge, in which each new discovery is valued as a contribution to systematic theory rather than for its practical value in any sphere. Unless we can maintain the flow of teaching and research in the basic structures of our sciences, applied science will end as mere workshop routine. So if psychology is to make its maximum contribution to the world's activities it must be firmly based upon fundamental scientific principles, and these the universities must guard. Perhaps the danger of diversion of interest is greater in psychology than elsewhere, because its impact on individual lives is so immediate and potentially all-embracing.

Even university teachers are exposed to temptation as appeals for advice or help reach them. We believe that we can give some aid in this direction or that, and it is natural enough to wish to give it. One would not desire to check such an impulse too sharply. Indeed the academic psychologist will be the richer for some contact with the problems of human life which can only be found outside his laboratory. But he must be aware that those who have great and increasing confidence in our practical activities nevertheless regard our science as a muddled collection of not very important facts without any established interpretation. All is in dispute. Let us discuss these two judgments, and first the status of psychological theory.

The disputes of psychologists

The prevalence of controversy is very evident, but misleading. Real disputes can only arise when there is a considerable amount of agreement and taking for granted. Our disputations obscure the fact that there is a very substantial body of teachable material sufficient to provide a full undergraduate course and to excite

intellectual fervour in students. We have reached the point where specialisation within the subject is becoming necessary. We can even talk to each other in terms unintelligible to the layman. It might be well if we confined ourselves to our esoteric language for a time, and avoided the attempt to make the subject understandable at the twelve year old level. But why is there such a wealth of " schools " and divergent theories ? Incisive argumentation, I believe, is not quite unknown in other academic fields, but it must be admitted that psychologists take to controversy at an earlier stage than their colleagues. There are reasons for this.

Go into any university where there is a well-established Department of Psychology and compare it with that of Physics. Disregard the relative areas of floor space and (with just a little twinge) the expenditure upon equipment. It is the size of the staff which matters, for the progress of a science depends (though not entirely) upon the size of the labour force serving it. As an experimental science, psychology is still rather young in years, but if its age is reckoned in man-hours it is infantile. And by reason of this disparity in human resources, psychology, for all its progress, continues to fall further behind the other sciences, and it is still at a stage of theoretical development which they have long passed. Moreover, until quite recent times psychology was kept alive in this country by the self-sacrificing efforts of a few enthusiasts, and enthusiasts tend to have individual views and to be combatively talkative.

In the open field presented to psychology about fifty years ago the experimentalists were almost compelled to explore detached localities of their own choosing. Each attempted to develop his own plot systematically without much regard to others, and perhaps was moved to theorize too widely and too rashly. The plots have not yet coalesced into one territory, and so we still have partial views with consequent disagreement in theoretical speculation. It is not yet possible to state the one line of logical development which psychology should follow in the next period. Everyone is still free to dig where he pleases. Yet progress occurs. The " schools " which excite the amusement of our colleagues have at all events led to intensive research in their own fields, and while neutrals may be critical and sceptical they are grateful for the factual discoveries which have resulted.

About twelve years ago the late Professor Aveling, when reviewing

the current movements in psychology, said that when able scholars reach divergent conclusions it is unlikely that either side is entirely mistaken, or that either sees the whole truth. It is more probable that, if carefully examined, the rival theories will turn out to be complementary. British psychology has largely followed this course. Those engaged in the subject seldom give their full adherence to any " school of thought ", and still less frequently try to establish one. We are eclectics. We hold with Aveling that the proper course is to learn from all, and for each to seek to build up a coherent body of doctrine, to be held provisionally and always subject to revision in the light of further discussion and increased factual knowledge. Few of us are moved to enter into the battle on one side or the other. We prefer to remain students rather than prophets. Some of us may also feel that too much theorizing on fundamentals is still premature. But our views have been most decisively informed as a result of the disputes. We may never give our allegiance to the Gestalt school or to Psycho-analysis, but we can no longer think except in the light of what we have learned from them. Our gratitude is sincere and profound. Fortunately we have never expected thanks for our selective acceptance of their views, for as psychologists we are aware that to the earnest protagonist none is so odious as the imperfect believer. On the other hand one may sometimes wonder whether the ardent champions do not occasionally waste time in seeking to make their victory more complete by re-killing the slain. Perhaps our reticence has disguised from the world how greatly we are agreed on things that matter. At all events there need be no fear that the university departments lack sufficient teachable material for a first degree course. Having examined in most of the British universities I can say that their standards are the same and the content of the courses remarkably uniform. Each institution has its own distinctive points of emphasis, but this is true of all subjects, and no one would wish it to be otherwise.

Applied psychology

Turning now to the applied fields, at the present time so popular and so respectable, it may be well to remind readers that those who labour in them were trained in the universities, and that in their first approach to their problems they had to rely on their deductions from what they had learned there. There is not the least sign that

they despise the tree when they gather the fruits. Nor are they so content with their achievements as the lay world seems to be. They regard themselves as research workers rather than as fully equipped practitioners. They are summoned, as during the war, to carry out urgent tasks and they loyally do what they can, breaking down their fundamental knowledge and applying their basic training to meet the particularity of the situation. They rightly claim to have improved matters: they do not claim to have found the full solution. So they have scientifically controlled experiments running throughout their work, hoping thereby to attain to a higher level of validity and reliability. From their researches psychology profits greatly, both by the data accruing from them, and by the reminder that our science must not—I would say cannot—be an abstract one, living within the laboratory walls. We have to study the life of human beings in the real world, and it is not permissible to withdraw from that world to float on the artificially serene pool of academic theory. This is why I recently said elsewhere that every psychology department should have a hobby as well as a syllabus. I would have that hobby one that involved contact with the everyday world, from which new problems will arise, and, no doubt, new controversies. If so let us frankly welcome them as providing an incentive to further systematic inquiry.

Universities and practical training

Pure and applied psychologists still regard themselves as being one body prosecuting one science, understanding each other, and looking hopefully and confidently to each other. Now let us look again at the relations between psychology as a whole and the universities. I would insist once more that the undergraduate course should be confined to basic training, without any attempt at vocational training. This should not be understood too literally. Students must be made aware of developments in the wider world, and some part of their course will inevitably have vocational significance. But preparation for work in any specialised field of application should be postponed to the post-graduate stage. Now that general psychology is comfortably settled into the universities it is time to consider what part the universities should play in training graduates for employment. Outside Cambridge and London very little has been done, and specialists have often been trained on the job at the expense of the job. The final stage of

acquiring competence must occur there, but between it and the degree course there is an intermediate field of systematic training and inquiry which needs proper provision. It may be argued that universities should avoid further commitments in technology (and applied psychology might be placed in that category). It can equally well be argued that if systematic training is desirable in the public interest, and if at the present time it cannot be adequately provided elsewhere, then the universities should undertake it. Therefore I should like the heads of university departments to speed up their consideration of this question, and prepare a scheme allocating specialised training in Mental Health, Educational and Industrial Psychology, to those universities in which they can be most effectively located. It is unlikely that any one university could comfortably handle more than one specialised branch, and local conditions will in many cases make some sections of applied psychology unsuitable. When a considered scheme of this kind has been drawn up it can be put to the universities. It would obviously entail a migration of postgraduate students, but I consider this to be eminently desirable on other grounds, and not only in psychology.

So I hold that the next development to be taken up by universities should be of this nature. I advocate it primarily as a public service, but it will bring substantial profit to the universities in the return flow of information, and in the stimulus provided by contact with the outer world. The universities have the primary task of maintaining the standards of independent teaching and research which they have built up in the past, but equally they must meet the urgent problems of the present day by a contribution of systematic and well-established knowledge. In psychology they have a fine opportunity to bring their activities into touch with the realities of the nation's life and work, and my plea, therefore, is that they should now seriously consider the development of postgraduate studies in Applied Psychology.

III. THE CONTENTS OF UNIVERSITY COURSES IN PSYCHOLOGY

By L. S. Hearnshaw

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Although psychology has been taught as an honours subject in British universities for more than a generation, psychologists can hardly claim that the honours courses in psychology to be found to-day in our universities are either final or satisfactory. There are many vestigial remains of historical development in psychological syllabuses and psychological textbooks. The psychologist, it would seem, is often slower than the rats he is fond of studying, in abandoning blind alleys. On the other hand some psychologists are more swayed by temporary fashions and enthusiasms than scientists ought to be. Thus courses in psychology often present the appearance of a strange mixture of the antique and the juvenile, the discarded and the unproven, and seem to lack a solid body of well-founded doctrine and principle. For two reasons the reconstruction of honours courses in psychology has become a matter of some urgency; firstly psychology has since the second world war become a considerable profession, and academic psychologists cannot totally ignore the claims of professional colleagues who wish the university training of psychologists to have greater vocational relevance; secondly, the time does at last seem to be ripe for synthesis in the whole field of psychology, and for an attempt to relate the various parts of the subject, originating from different sources and developed by diverse schools, into a meaningful, if necessarily a somewhat provisional whole. Indeed there are already signs of the emergence of a psychology transcending the psychologies of the schools, a psychology which, however extensive its ignorances, does at least possess a powerful sense of direction and a sense both of its necessary limitations and of its opportunities.

On one matter psychologists, judging from recent discussions both in this country and in America, seem to be increasingly agreed. The training of the psychologist in psychology should take place in three stages. There is first the introductory stage comprising an elementary general course *about* psychology rather than *in* psychology. Such a course is not exclusively for psychologists but is available for students in social science, education and other faculties. Secondly, there is the basic honours course in psychology. This course is not

primarily vocational; it is concerned with basic principles and methods and the general framework of the subject. But on the other hand it should not be obstinately non-vocational, and confined to a special set of academic problems. It is not so much the problems as the way they are handled that is the characteristic mark of an academic course. The third stage is the postgraduate or specialist level at which the basic honours course is supplemented by more directly vocational training in the special branch of psychology which the student proposes to take up—educational, occupational or clinical.

A training in method

It is to the honours course in psychology that I propose to confine my attention in this brief paper. The admission of a subject to the status of an honours school in a university should not be easy. A university honours course must provide at least two things: it must, first, provide a training in tools and methods of fundamental and general importance, such as the use of language, mathematical reasoning, experimental method, or logical analysis; and secondly, it must possess a certain bigness or breadth of subject matter capable of permanently enlarging the comprehension and influencing the thinking of those who pass through its discipline. In other words, a university honours course must be both exacting and illuminating; it must train its students in the use of powerful tools and provide them with illuminating insights. A fusion of thoroughness and breadth is the hall-mark of a university training. Some of the older university disciplines are admirably fitted to fulfil these requirements. It is my belief that psychology too can meet them, and that it is already well on the way to doing so.

For in the first place a modern university course in psychology is no mean training in method. Every honours student in psychology learns how to plan and execute experiments where careful planning is essential if any conclusions at all are to be drawn. Indeed, it could be argued that the student of psychology becomes far more critical than the physical scientist of the sorts of intuitive judgements that are constantly being made in everyday life, simply because these judgements are so much more frequently psychological than physical in their reference. Again every modern course in psychology includes a fair dose of statistics, and the tendency has been for some time to require an increasingly thorough comprehen-

sion of the underlying principles of statistical mathematics. Finally the student of psychology gets a training in methods of clinical examination, psychological testing, the assessment of personality traits, and the collection of data by interviewing and other verbal methods. Though these methods lack precision, their relevance to the affairs of life is so intimate that the training the student of psychology receives can be regarded as important.

A frame of reference

Methods, however, are only tools. The most costly equipment, the most elaborate experimental design, the most subtle statistical analysis are only valuable in the service of significant problems. If a problem is a trivial one, it remains trivial whatever the methodological apparatus that is brought to bear on it. Psychologists cannot altogether escape from the criticism that they have at times brought a mighty mass of method to bear on very artificial or on very vague problems. An honours course in psychology must correct this failing by giving a sense of significance and by providing a frame of reference. It is as easy for psychologists as for other specialists to get lost in byeways and bogged in a morass of facts, unless certain primary purposes are kept resolutely in view. An honours course in psychology must be built around these primary purposes.

Here, of course, we are confronted with the major difficulty that psychologists themselves are by no means agreed as to what these primary purposes should be. This is not altogether surprising since psychology has undergone such revolutionary changes in the seventy years since Wundt established the first psychological laboratory at Leipzig. The successive impacts of experimental psychology, psychometrics, psycho-analysis, behaviourism, Gestalt theory and social anthropology have radically transformed psychology, and have followed each other with such breathless speed that there has been insufficient time for the work of assimilation. The surprising thing indeed is that in a subject which has evolved with such rapidity, there is so much that is common in the contents of psychology courses in different universities.

Any brief account of the significant framework of psychology must appear unduly dogmatic and more or less objectionable to some psychologist or other. In so short a space I must put the matter dogmatically or not at all. Psychology is best defined as the science of behaviour, rather than of mind, experience, or

consciousness; though this does not necessarily imply the exclusion of so-called introspective evidence. The most ominous split among psychologists concerns the point of approach to the study of behaviour. One group, with an experimental and physiological bias, takes minute segments of behaviour which are examined under rigorously controlled conditions and often with elaborate instrumental techniques; the second group, with a clinical and social bias, is concerned rather with human behaviour in the large, with the problems of conduct and adjustment which are actually met with in real life but are harder to investigate with strict scientific methods. In at least one American university the department of psychology has already split into two on this issue. The danger of such a split is not absent in this country; for although no university is likely to establish two departments of psychology as such, there are already universities where those aspects of psychology which the pure psychologists refuse to include in their courses are being developed in departments of education by educational and child psychologists. I regard this as a most unfortunate tendency. The requirements of an honours course are that it should be both exacting and illuminating. The split endangers this marriage of requirements. One sort of psychology becomes exacting but obscure; the other illuminating but with a fuzzy light. The unity of psychology is important for its status as a university subject.

The field of psychology and its sub-divisions

We must, I believe, accept the bigger definition as a framework. The minute, exacting, laboratory investigations can be set in the larger framework; the reverse is not the case. The psychologist studies behaviour; this behaviour is the behaviour of people and the life history of the individual man is ultimately the unit with which the discipline of psychology is concerned. This is the matrix in which all his enquiries are embedded, including the analytical investigations of the experimentalists, and from which finally they all derive their significance. This is the unity which those philosophers like Professor Ryle, who describes psychology in his recent book *The Concept of Mind* as " a partly fortuitous federation of inquiries and techniques ", have overlooked. In principle, psychology is a systematic discipline with a central theme and an orderly arrangement.

The unitary field of psychology can be broken up in various ways.

It can be subdivided temporally; thus we get child psychology, the psychology of adolescence, and the psychology of old age (a period of life which is only just beginning to interest psychologists in this country). It can be subdivided in relation to the major kinds of influence, the somatic and the social, which mould human personality; thus we get on the one hand physiological psychology, and on the other social psychology. It can be subdivided analytically into the study of capacities, the study of personality, and the study of the mechanisms of adjustment. Under the heading of capacities the psychologist studies the basic human capacities for perceiving, for response, for learning, for symbolization; how these capacities are related, how they develop, under what conditions they function efficiently or inefficiently, how they may be measured, and how they are distributed in a given population. The psychology of personality comprises the study of temperament, of motivation, of attitudes and of character structure, and of how these are related on the one hand to constitutional factors, and on the other to the culture pattern in which the individual is nurtured. The psychology of adjustment studies the ways in which the individual meets the internal conflicts and the external problems with which life confronts him, and the various psychological mechanisms that are brought into play in the process. In this field the psychologist leans heavily on the work of the psycho-analysts and psychiatrists, and the honours student in psychology, although he is not being trained in medical psychology, needs some knowledge both of the data and the theoretical interpretations of psychiatry.

The relation of psychology to other subjects

I have no doubt that the content of psychology so envisaged has the bigness and breadth of subject matter that a university honours course should provide; that it is capable, to a marked degree, both of enlarging the comprehension and influencing the thinking of those who pass through its discipline. The case studies of the psychologist, the insight into human problems and human strivings which they give, are both moving and illuminating. In their own way they are as educative as the panoramas of history or the inspirations of literature, and what they lack in art they gain in the nearness of their reality.

Nor is psychology a self-sufficient subject; in fact it is less self-contained than perhaps any other subject in the curriculum, and

this is possibly another of its major merits, for it points in many ways beyond itself. It points to philosophy from which it has only recently disengaged itself; it points to the biological sciences, to zoology, physiology and medicine, since the foundations of human nature are biological; it points to the social sciences, and to history; finally it points to the humanities, through which alone the highest and most subtle aspects of human nature can be appreciated. Though a university course in psychology can make the student an expert in none of these adjoining fields, it should make him aware of most of them. Quite apart from having to take some of these adjoining subjects as subsidiaries, the honours student finds that within the psychology course itself there is likely to be some philosophy, some zoology, some physiology, some sociology—and it is the practice of at least some honours schools of psychology to require their students to read literary masterpieces of psychological moment. If the study of psychology involves specialization, it does not involve a narrow specialization.

One might go further than this and maintain that logically, psychology occupies a central position in the whole corpus of knowledge—that it is the bridge between the physical and biological sciences on the one side and the social sciences and humanities on the other—that all the faculties of the university, arts, science, medicine, law, education and even commerce and engineering are in some sense or other in need of psychology. I am well aware that few persons to-day would accept such a claim, and that many would even greet it with abhorrence. It would indeed be absurd for psychology to try to order a kingdom while its own house is still imperfectly founded. But in the long run thinkers like Dilthey, who have grasped the centrality of psychology, may prove to be right; and in a distant future it may well be that the subject which the universities of this country have admitted only recently and with hesitation, may turn out to be a nucleus for the restoration of the lost unity of learning.

IV. SOCIAL PSYCHOLOGY

By John Cohen

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It is convenient to mark off areas or " branches " of psychology; but the categories of subject-matter which thus arise are not co-ordinate, and it is hard to avoid some confusion ensuing from the use of multiple criteria of classification.

For example, the distinctive feature of one area is the kind of method employed; of a second, the age range of persons studied; of a third, the field of application; of a fourth, the degree of normality; of a fifth, the nature of the process studied; of a sixth, the level investigated; of a seventh, the unifying theory, and so on. As one example of each of these areas we have (1) experimental psychology, (2) child psychology, (3) educational psychology, (4) psychopathology, (5) psychology of cognition, (6) psycho-analysis, (7) hormism. These " areas ", far from being mutually exclusive, cut across one another in some ways which are obvious and in others which are not so obvious. It is characteristic of social psychology that it impinges upon all the other areas. Social behaviour can be studied by a variety of methods. It occurs at all ages. It may be observed at home, school, factory, or clinic, regardless of the " normality " of the participants. It has its cognitive structure as well as its deeper aspects, and requires a unifying framework of theory.

In this sense therefore, social psychology is almost indistinguishable from what goes by the name of " general psychology ". Today, even such supposedly individual activities as perception, thinking, learning, are being experimentally studied as social processes.

Social psychology seems to have passed through three stages of differentiation in the course of acquiring an identity of its own. It began with the study of collective phenomena, the description of crowd and other forms of gregarious behaviour, the study of imitation, suggestion, language, and the so-called " group-mind ". During the second phase of development, its scope widened to include criminal and other deviant behaviour, race-differences, leadership, belief, prejudice and stereotypes, the study of methods of mass communication and propaganda, and the measurement of public opinion. At this stage it was interested almost exclusively in observable uniformities of behaviour, in common characteristics

and common reactions to specified social influences. It was still the study of *classes*, not yet of *groups*.

During the third stage, investigators directed their attention to phenomena which are comprised under the name " group dynamics ". Topics now being actively examined include the formation, structure, and stability of groups, the natural rise of leaders in " leaderless groups ", group atmospheres, patterns of attraction and repulsion in interpersonal relationships within groups (sociometry), tensions and resistances within and between groups, productivity of group thinking, and roles of different group members.

The beginning of a psychology of the self-made man

It may help us to understand the nature of the growth of social psychology if we glance for a moment at some of the preconceptions about man and society which have been held in the past. During the Middle Ages, it could hardly have occurred to anyone to engage in the study of " individual minds " in the modern sense because society was regarded as a kind of organism, each part of which had a definite function in relation to the whole. Towards the end of the period, with the rise of a new merchant class, the doctrine of social function yielded to the notion of individual worth. Self-interest came to be thought of as the dominant human motive. The empiricism of Locke and his followers, the economics of Adam Smith, and the ethics of Bentham, are all variations on the theme of an individualism which was perhaps most succinctly expressed by John Stuart Mill: " Human beings in society have no properties but those which are derived from and may be resolved into the laws of the nature of individual man." There developed a psychology of the self-made man.

For reasons which are intelligible in the light of the social and economic trends of the twentieth century, the pendulum swung the other way. Freud seems to have been the first explicitly to assert the view that individual and social psychology are one and the same thing, a view which is being increasingly encountered today. As Professor T. H. Pear recently observed: " All human psychology is social psychology and individual psychology considers the person by abstracting him (often illegitimately) from his social environment."

Two special factors may be singled out as having encouraged the recent rapid growth of interest in social psychology. First, the setting up of Departments of Social Science in an increasing number

of British universities has led to a demand for the teaching of those aspects of psychology which have a demonstrable bearing on the training of social workers in many fields—personnel managers, probation officers, hospital almoners, medical and psychiatric social workers, housing estate managers, youth leaders and others. From this source there has been pressure on psychology to " come down to earth " and develop principles and methods likely to help the social worker in day to day work. A similar pressure has come from the recent expansion in preventive and social psychiatry and, to some slight extent also, from social medicine.

Social sciences' contribution to war and post-war reconstruction

Secondly, the greater readiness since World War II to accord recognition to the social sciences as a coherent group of disciplines, presumably because of their contribution to the war effort and to post-war reconstruction, has in appreciable measure helped to strengthen the position of social psychology, which received the signal honour of being mentioned once on the first page of the Clapham Report.

Just as psychology as a whole, in virtue of its interest in creative mind, aesthetic appreciation and biography, performs the function of a bridge between the sciences and the arts, so social psychology constitutes the link between the natural and the social sciences. The foundations of social psychology lie in animal behaviour but it has close affiliations with its cognate disciplines: sociology, anthropology, economics, demography, political science, administration and law.

Both in theory and in practice, the social sciences (other than social psychology) have to make certain assumptions or presuppositions about the nature of man. Their development turns on their collectively achieving a degree of internal consistency and mutual interdependence similar to that already achieved in the natural sciences. That time will come when, for example, the economist stops to ask himself whether what he has to teach is consistent with what psychology has to say about social behaviour. At present, the social sciences cannot claim such integration; but there are grounds for hoping that a more developed social psychology may act as a " unifier " in this respect.

Development of " action-research "

A current trend, which holds considerable promise for the future,

is having the effect of extending the common ground shared by the social sciences and of bringing to their several approaches some of the unity which belongs to social phenomena themselves. I refer to the tendency of investigators to become involved in " action-research ". This is the name given to the activity the aim of which is, not simply to draw up a list of conclusions regardless of the likelihood of their ever being put into effect, but to endeavour to implement the " results " in the course of elucidating the problem. The central idea is expressed in the motto (atttributed to the Tavistock Institute) " no research without therapy, no therapy without research." Action-research is a development in the field of social psychology.

The urgent need for something of the nature of action-research became evident when it was discovered that for many years a great deal of scientific effort on the part of psychologists and other investigators had resulted in nothing more than the accumulation of learned reports. When the inescapable question was eventually asked " Why was no action taken to implement the results ? " it became clear that, for example in the industrial sphere, the crux of the psychological problem lay not so much in, say, discovering more efficient ways of operation but in getting management and workers to put the " scientific results " into effect. Attention was thereby drawn to powerful psychological and social resistances to change. It dawned on social investigators that the question now to be asked must be " What do you do with the facts when you have got them ? "

Reflection on facts of this nature led to a distinction being drawn between so-called " black" and " white " methods of social research. Black methods are those in which the investigator analyzes and reports " on " a situation without taking those concerned in the situation into his confidence. That is, he obtains his facts with or without the co-operation of those whose problems he is studying, interprets the facts according to his own satisfaction alone, and sets out in his report the recommendations which he considers should be applied to the situation. In carrying out this procedure the social investigator behaves in much the same way as a biologist in dissecting his frog.

The " white " method is one in which every stage in the enquiry is carried out in the open. There are no surreptitious or clandestine observations. The investigator is not an outsider prying into the

inner affairs of an institution or group. He is accepted by them as one of themselves. Jointly, they proceed to unravel the problems, and the upshot, whether it is in the form of a report or action or both, is arrived at with the full concurrence of everyone concerned.

Does social psychology lack reality ?

The charge that social psychology lacks " reality " had a certain substance so long as social psychologists drew their conclusions exclusively from books written by their erudite predecessors or from cogitation on random observations. It was only after pressure of circumstances had led them to study and *do something about* concrete situations that social psychologists began to appreciate the need for a special kind of laboratory or work-shop. They saw that their laboratory facilities must include centres of group activity in the wider community and opportunities to study " real life " situations at first hand. Important steps have been taken in this direction, especially in the United States, as social psychologists have become caught up in the contemporary scene and intensely involved in the study of such problems as the adjustment and relations of minority groups or the effects of morale on industrial productivity.

It would be a mistake to suppose that the study of a " real life " situation is necessarily less scientific or rigorous than the study of an artificial situation in a laboratory. On the contrary, while it is true that many social phenomena can be investigated in the specially designed circumstances of an academic laboratory, the *dynamics* of social interaction may be much more profitably and often more systematically studied in concrete situations as they occur in real life. Perhaps the most significant development in this connection has been the demonstration that it is possible to carry out formal and relatively precise experimental studies of group dynamics. A number of text-books on " experimental social psychology " have been in existence for some time, but it is only in the last few years that genuine experiments have been conducted—that is to say, enquiries which have succeeded in achieving appreciable and measureable changes in the structure and function of groups, thus bringing to light underlying relationships between, say, forms of leadership and group productivity.

An encouraging sign is the appearance of several technical journals devoted to the study of group dynamics and to the

integration of the social sciences as a whole. The pursuit of these two joint aims is felt by workers in the field to be necessary for the realization of either of them. This is chiefly due to the fact that the problems of group dynamics in their natural social setting do not fall neatly into the domain of social psychology alone. Other social sciences may also be involved. Hence a team of investigators may be called for, the emphasis in their co-operative effort being placed less on the diversity of their respective backgrounds than on the convergence of their approaches to a common goal. The development of this kind of research in English universities requires a closer association between the departments concerned than at present appears to be the case.

Why the social psychologist is an " academic exile "

The teaching of social psychology in the honours schools of the universities is, with two or three notable exceptions, lamentably defective. But the whole subject of the teaching of psychology at the universities is undergoing a well-needed if belated scrutiny at the present time. It would be too much to hope that a unity of viewpoint is likely to be achieved in the near future. The nature of some of the contending forces may be inferred from the fact that at a recent symposium it was necessary for Professor Knight to insist that " the study of emotion, motivation, and personality *must not be ignored* " (my italics). The most active English research centre for social psychology is located outside the universities and some of its members are fond of describing themselves as " academic exiles ". The underlying *malaise* was diagnosed some time ago by J. A. Hobson as a lack of free thought in the social sciences, and more recently Robert Lynd, the American sociologist, has drawn attention to the same problem. One of the chief symptoms of this *malaise* in psychology is the lack of a coherent framework of theory for the subject as a whole. Perhaps I may be permitted to express a personal view that this gap will be closed when a synthesis (not electicism) is reached of the three chief theoretical trends in modern psychology, namely, neo-behaviourism, psycho-analysis, and configurationism.

V. INDUSTRIAL PSYCHOLOGY

By Alec Rodger

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What do industrial psychologists do? What sort of people are they? What training have they had? Some consideration of these questions must precede discussion of the provision our universities should make for industrial psychology. I shall base my short answers to them on a bird's-eye view of the membership of the Industrial Section of the British Psychological Society, the only body that attempts to gather industrial psychologists together in a comprehensive way. In taking this as my starting-point, I do not suggest that the Section is all that it should be, or could be; my intention is, rather, to give my comments a basis of indisputable fact.

It will be noticed that I make frequent reference to the Fighting Services. This is because an appreciable proportion of our industrial psychologists is employed, directly or indirectly, by the Royal Navy, the Army and the Royal Air Force. In the United States many of these people would be classed separately and called military psychologists. We have so far kept off the American distinction, and we are tending to remove the resulting (and other similar) incongruities of description by referring to all industrial psychologists as occupational psychologists. For my immediate purpose I shall stick to the old adjective but give it a wide meaning. I shall indeed regard as industrial psychologists all those psychologists who are concerned primarily with problems of an occupational kind.

Three preliminary questions

First, then: What do industrial psychologists do? Apart from the tiny group who teach their subject—mostly on a part-time basis, and in a very small handful of universities—five groups are distinguishable.

Group 1 deals chiefly with *personnel selection* problems. A few of its members serve on high-level selection boards (for example on the Civil Service and Admiralty Selection Boards, and on *ad hoc* boards for the selection of managers and management trainees in industry). The rest—and the first lot, too, at times—can be called advisers on selection method. They are much concerned with the devising and evaluation of procedures for application by non-

professional selectors (for example, personnel selection officers in the Fighting Services) and with the training of these selectors. The procedures ordinarily involve the use of systematic interviews based on appropriate written *questionnaires*, supplemented by standardised tests of educational and occupational attainment, general intelligence and certain special aptitudes.

Group 2, rather smaller, is active in the field of *vocational guidance*. Some of its members concentrate on giving careers advice to individuals, mostly school leavers and adult misfits, at the National Institute of Industrial Psychology and in such places as the Industrial Rehabilitation Units of the Ministry of Labour and National Service. Others combine their individual advisory work with the instruction of non-professional advisers (for example, youth employment officers and careers masters) and with appropriate research, much in the same manner as their counterparts in the field of personnel selection. Here, too, considerable use is made of interview procedures, *questionnaires* and tests.

Group 3, smaller still, deals principally with the improvement of methods of *occupational training*, particularly in the Fighting Services. Usually, its members have to give a good deal of attention to the improvement of reporting techniques also; and, in seeking this improvement, to the improvement of examinations of occupational knowledge and skill. Like their colleagues in the personnel selection and vocational guidance fields, and elsewhere, these people must in fact spend some of their time establishing criteria whereby to judge satisfactorily the value of the work they do.

Group 4, also small, is interested chiefly in the improvement of *methods of work, the design and layout of work equipment, and the environmental conditions of work*. Some of the people who belong to it have very strong " fundamental " research interests and are to be found mainly in laboratories, especially in the Cambridge Psychological Laboratory, which has for this purpose firm financial support from the Medical Research Council. Most of the others are employed by firms of industrial consultants.

Group 5, middle-sized but growing appreciably, is composed of men and women whose main concern is with research into what is nowadays often called *the psychological climate of work*. Its members, who are to be found principally on the staff of the Tavistock Institute of Human Relations, the National Institute of

Industrial Psychology, and several units of the Medical Research Council, are taken up mainly with problems arising in the field of management-worker relations.

The divisions between these groups are by no means clear cut, but there is undoubtedly a tendency to separateness. Members of Groups 1, 2 and 3 often move from one of the three groups to another; but there is relatively little movement from them to Group 4 or Group 5. Groups 4 and 5 are in fact inclined to remain apart not only from the first three but also from each other. However, members of all groups are accustomed to co-operative activity with each other and with other advisers (for example, engineers, physiologists, and psychiatrists), as well as with their " users ".

Our second question is: What sort of people are industrial psychologists? They are as mixed a lot as will be found in any occupation of a professional type, but a few points seem to stand out. In the first place, rather sharp cleavages exist between those with " fundamental " research interests and those who prefer the the giving of advice; between those who are interested in " fitting the job to the man " by investigations into (for example) the design and layout of work equipment and those who are mainly concerned with " fitting the man to the job " through improvements in guidance, selection and training; and between those who are interested primarily in groups and those whose preference is for dealing with individuals. Secondly, conditions of employment in industrial psychology are not yet good enough to ensure that it gains and holds the allegiance of a satisfactory proportion of men and women of outstanding intellectual quality. Thirdly, industrial psychologists are on the whole youngish, not because their trade is a very new one—it was born just before the First World War—but because the practice of it often involves much uncongenial travel that tends to drive many away from it when their domestic ties tighten.

The third of our preliminary questions is: What training have they had? There is little sign of uniformity. In the first place, while many industrial psychologists have taken a bachelor's degree course in which psychology has figured as the main subject, others have come to their professional work after acquiring a degree in some other subject. Of the latter, most have an appropriate higher degree or a diploma; but a few (including, it must be said, some of

the best) have had virtually no academic training in psychology at all. Secondly, while some have built up their specialised knowledge and skill through membership of a research team, most have been given a sort of apprenticeship in advisory work in a restricted field (for example, in personnel selection or vocational guidance). A certain number have had to take up specialised and isolated appointments with next to nothing in the way of training or experience; they have been almost in a worse position than a medical student would occupy, if he were pitched into a house-surgeon's job immediately after passing his Second M.B. In fact, the proportion of industrial psychologists in this country at the present time who can lay claim to comprehensive and systematic training in the theory and practice of industrial psychology, as such, is negligible.

The main question

Now let us turn to the main question: What provision should our universities make for industrial psychology? If the subject were merely a simple technology to be taught, the answer might be "None". In such circumstances it might be argued that technical colleges and independent institutes should look after it. A contention of this sort would in fact be unrealistic as things are now, because although some technical colleges make a useful attempt to run courses designed for industrial personnel officers, works managers, and others who should know what industrial psychology is about, none is equipped to train industrial psychologists. Nor are the existing independent institutes in a position to undertake the assignment, for their funds would not permit anything of the kind. (Some years ago the National Institute of Industrial Psychology drew up detailed plans for a comprehensive course, but the scheme had to be withdrawn on financial grounds.) In any case, the fact that the subject is full of political dynamite makes it thoroughly desirable that, at least until it is more developed, it should be dealt with mainly under university auspices, in order that it might have the benefit of supervision widely regarded as respectable, and be reasonably free from the financial and political pressures which might otherwise be exerted upon it, possibly to its lasting detriment. I say "as things are now", and "at least until it is more developed", because I recognise that technical colleges and independent institutes are the proper places for the teaching of most technologies, and that

eventually a good deal of instruction in the practice of industrial psychology must be done in them.

But industrial psychology is not merely a technology. It is a science too. The fact that its technological problems have received more attention than its scientific problems must not be taken as evidence that the industrial psychologist considers the latter unimportant. The causes of his difficulty have been several, but the most serious has been a lack of funds for research and training. Its occurrence has had the unfortunate effect of making many academic psychologists look down their uptipped noses at their intellectually scruffy relations. The only way in which the vicious circle can be broken is for the universities to say: We will now give you a chance to develop your subject in a scholarly fashion, and to build up research and training teams who will not have to think quite so much about the influence of their work on their bread and butter. I believe that sufficient promising work has been done to justify such a step. So far industrial psychologists have had no real opportunity to prove themselves, for even in those universities which already make some provision for training and research in their subject, the whole business has been tackled in a half-hearted manner, except perhaps quite recently by Edinburgh which seems to be embarking on a vigorous attempt to clamber out of the common rut.

If the universities—or some universities—decide to take industrial psychology seriously, how should they set about training men and women for it? Certainly not by regarding it as appropriate for a first degree. There is of course a strong case for letting first degree students of psychology know enough about it to enable them to judge whether they want to specialise in it. But it should be essentially a postgraduate subject, taught, if need be, in small institutes very firmly attached to university psychological departments.

I hasten to add that in my view the first degree need not be in psychology, not only because industrial psychology can profitably absorb people trained in other disciplines (especially physiology, engineering, anthropology and economics) but also because experience has made it abundantly clear that allowance should be made for the would-be industrial psychologist who comes to the subject so late that he cannot reasonably be expected, usually for reasons that are mainly financial, to start from scratch. However, to such people a grounding in general psychology should be given

side by side with, or before, their specialised instruction. For psychology is one; and although specialisation within it is in practice as necessary as it is elsewhere, its wholeness must receive emphasis.

London attempts to grapple with this last problem by offering an Academic Postgraduate Diploma in Psychology, in which, in the case of graduates in subjects other than psychology, specialisation in industrial psychology for a year follows a year spent on general psychology. To my mind, the arrangement is somewhat, hazardous but provided the whole course can be packed full of meat, university terms ignored, and a high standard set, there appears no reason why it should not serve a useful purpose. The practice of encouraging people to become industrial psychologists through a higher degree, without any broad training or experience in industrial psychology, merely by presenting a thesis on a topic lying within the occupational field, is one that in my opinion should be dropped as soon as we can afford to drop it.

My own general plan would be, I think, as follows. (1) For men and women with a first degree in psychology, a two-year course leading to a doctor's or master's degree by an examination in theory and practice, and a thesis or dissertation. The course would not be confined to industrial psychology but would in a broad way deal also with other branches of psychological knowledge, especially medical, clinical, educational and social psychology. Theses would be a good deal shorter than they usually are, and they would often be based on contributions to investigations carried out by teams. (2) For men and women with a first degree in some subject other than psychology, a course of the same length and with the same aim, preceded by a written qualifying examination in general psychology, based either on attendance at a suitable course or on private study. (3) For non-graduates of mature years, the same requirements as for graduates in subjects other than psychology, but with a diploma in industrial psychology instead of a degree as the end-object.

That there would be difficulties of several kinds in the way of the adoption of such a scheme, I am well aware. But I believe that an effort to overcome them would prove worth while. It would not call for any very drastic change in present tendencies; yet it might lead quite quickly to the creation of a corps of better informed and more skilful industrial psychologists.

Finally we come to the question: What points should receive special attention in the university training of the industrial psycho-

logist? I shall have to answer this mainly on the basis of experience "in the field", for I have spent nineteen years there and only one in a university teaching post.*

First, the potential industrial psychologist should be taught thoroughly that his specific task is to concern himself systematically, and in whatever detail is appropriate, with what I shall call "the capacities and inclinations of people as workers". He is not a general psychologist who happens to be interested in "applying" his knowledge and skill to occupational problems; nor is he a common-sense efficiency expert. He is a person whose specialised and onerous duty it is to know about, and be able to use, concepts, methods and findings of particular value in forecasting what people, in their role as workers of every kind and level, will be able to do and will want to do. Emphasis on this key point is greatly needed, not least at the present time, when enthusiasm for team-work is apt to obscure the fact that a scientific team, like a football team, should be composed of people who have clear primary responsibilities as individuals, and who can, each and all, make a specific contribution to the work of the group as a whole. The industrial psychologist becomes a good member of a team by being a thoroughly competent industrial psychologist in it, not by being a nondescript jack-of-all-trades with a friendly feeling and an earnest desire to do good.

Secondly, he should be taught to see that, nevertheless, the problems of industrial psychology are closely bound to each other; to the problems of other branches of psychology; and to the problems of other scientific disciplines. What appears at first sight to be a problem to be solved by improved personnel selection methods may turn out to be one that should be tackled by the simplification of the method of operating a machine. What seems

* Perhaps I should explain that 10 of the 19 years were spent mostly in doing vocational guidance and personnel selection at the National Institute of Industrial Psychology, and in giving instruction in vocational guidance. Administrative chores came into the picture too, because for the last few years I was head of the vocational guidance department. Then, after a profitably fantastic year at the War Office, in the department of military training, I went with several colleagues to the Admiralty, where for nearly 8 years I ran the new psychological department that we built up, in an exciting and on the whole satisfying way, directly under the Second Sea Lord, the Chief of Naval Personnel. We were concerned mostly with personnel selection; but we had to tackle problems falling in every one of the five groups I mentioned at the beginning of this paper, from conducting surveys of the attitudes of sailors to pastel shades of paint on the messdecks of new warships to the vocational guidance of men leaving the Service. I am still supposed to be responsible, on behalf of the present Senior Psychologist to the Admiralty, for the technical supervision of the Naval Motion Study Unit.

to be a problem he can solve single-handed may on closer inspection demand also the attention of medical and social psychologists. What strikes him as a problem that is, in one way or another, largely psychological may in fact show itself to be anthropological too. We have suffered greatly from neglect of this point, and undoubtedly a chief cause of the difficulty has been a tendency to regard industrial psychology as a technology only.

Thirdly, he should be taught that, whether he is working as a scientist or as a technologist, his business is to proceed by formulating hypotheses that can be tested. He must learn how to plan investigations in which relevant data can be collected by systematic observation in either controlled or uncontrolled conditions; and how to use statistical procedures that will enable him to extract sound conclusions from those data. And he must learn how to do this in the solution of common occupational problems. This is far more important than that he should be given an additional dose of the trivialities that often pass as " experimental psychology ". These seem frequently to be nothing more than party games based on crude physiology and cruder physics, spun out by some rather pointless calculations.

Fourthly and lastly, he should be taught the elements of three basic skills—how to take a case-history in an interview; how to use a few standard tests of the sort often needed in vocational guidance and personnel selection; and how to write reports that will be both technically sound and understandable by an intelligent layman. The last is not the least important, for the industrial psychologist who cannot put his work across to any but his colleagues is of limited value. One of the simplest ways of inculcating these three skills would be to have, attached to each training institution, a small vocational guidance unit run co-operatively with the local Youth Employment Bureau.

But even if they do all this our universities will not produce *fully* trained industrial psychologists. For all but a few men and women, the next step should be their appointment to properly supervised posts comparable with those of the house-surgeon and house-physician, but lasting longer. Several Government departments now employing psychologists could well offer a limited number of temporary appointments of this nature (for example, the Admiralty, in the field of personnel selection); but, alas, attempts to persuade them to do so have up to the present met with little success.

VI. CLINICAL PSYCHOLOGY

By John D. Sutherland

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There is probably no part of the psychological world to-day so beset with difficulties as that covered by the term clinical psychology. Differences in theory and practice divide various professional groups in such fundamental ways that the outsider cannot be blamed for asking as he does whether or not psychology can ever be scientific. In presenting the following thoughts I should like to start by saying that I shall almost certainly omit many important considerations. The subject is a difficult one and the issues demand radical solutions. I can only offer suggestions along certain lines in the hope that they may further more comprehensive discussions in which groups of different kinds of psychologists would collaborate. In psychology facts are so many and so bewildering that any one observer cannot but select, and perhaps distort, under the pressure of his own internal world. It may help the reader to put what follows into perspective if he notes that the writer was trained first in general or academic psychology, then in medicine, psychiatry and psycho-analysis, and he is now in an out-patient psychological clinic.

Let us consider first the pattern of those activities from which the term clinical psychology is borrowed.

Some observations on the pattern of clinical medicine

When we think of clinical medicine, we think of the doctor and what he does, and of the scientific knowledge upon which he draws. We may put the emphasis on the latter and think of all the laboratories in which the principles of the medical sciences have been evolved; but with them we link indissolubly hospitals and clinics and the stream of individuals to relieve whose suffering the whole of these sciences are directed. That is to say, we think of a body of knowledge about the human organism whose content has been built up over the years under the inspiration of our attempts to meet the demands of the sick, and of practitioners whose training includes a systematic grounding in the medical sciences interwoven with the acquisition of certain attitudes and practical skills in dealing with suffering people. To describe what is covered by this term " skills " is not easy. It is certainly more

than being clever in the use of technical procedures or instruments and more than possessing certain knowledge. It includes the way in which the doctor can integrate his knowledge into an " apperception mass " which enables him to observe the totality of the patient; and it also includes something which underlies the maintenance of a particular kind of human relationship. A " purely scientific doctor ", if we could imagine such a person, could diagnose and treat several conditions without the active co-operation of the patient; but it is certain that many patients would not stay long with a doctor who used nothing but scientific tests. His work would become self-limiting because patients would not feel inclined to mention certain matters. The humanity or therapeutic motive within the relationship has apparently to be sensed sufficiently by the patient before all the facts of the situation tend to emerge.

This therapeutic setting of the medical sciences is fundamental to their development. I wish to stress this point as I think that it is the absence of this setting which has created the major difficulties in the psychological sciences (a more useful term than psychology) and above all in clinical psychology.

Let me say at this point that I do not regard the medical sciences as " applied sciences " because they are orientated by the ultimate task of relieving suffering. I may remark in passing that I do not understand what is meant by " pure science " or " knowledge for its own sake ". A very great amount of what could be called " pure science ", or better to my mind, fundamental research, is carried out in the laboratories and allied institutions both by clinicians and non-clinicians. Moreover, I believe that such fundamental research is most successful, paradoxically enough, when the research workers enjoy the protection and the intellectual climate of a university setting and when they may be devoted to what is usually referred to as " pure science ". *The essential point, however, is that the choice of problems studied is constantly influenced by the therapeutic framework of the medical schools and the corpus of scientific knowledge includes facts which are obtainable only within the therapeutic relationship between the doctor and the patient.* For instance, could one envisage the present state of physiology if physiologists had never been in touch with pathology ? Would our knowledge of the endocrine function of the pancreas have been achieved without diabetes and *the willingness of diabetics* to undergo investigations because of their therapeutic needs and because the

doctors studying them were also helping them. It is, of course, obvious that once a certain line of thought is started from clinical findings, a great amount of laboratory work is inspired. Some of this in turn may be fed back into clinical practice, but much of it spreads out into a wider range of general biological understanding. To put the matter in another way, none of the biological sciences can afford to neglect the pathological as a source of insight into the normal; and, in the study of human beings, it is virtually impossible to gain access to the pathological unless the individual is promised help. Few people will permit a surgeon to perform an operation on them in the interests of science; most will when the operation is to relieve their pain (Wilson, 1947)*.

To sum up, the medical clinician today is as effective as he is because his training is based on the relevance of the medical sciences to the physical illnesses and on the practice which he learns within therapeutic institutions. The knowledge and skills the doctor acquires enable him to understand and to treat a large proportion of the problems he is confronted with, and to recognise those for which he needs the help of specialists. Any doctor can communicate readily with another about a particular patient, and if need be, the patient can be transferred with a fair chance of the treatment of one doctor being appreciated by the other. And if the practising doctor should meet an "academic" worker in medicine (whether in teaching or in research) the chances are that both could find several medical problems to discuss with mutual profit.

Let us now turn to the psychological world.

The present position in clinical psychology and its history

Starting from the corresponding general view that clinical psychology must refer to the theory and practice of what is done for individuals who need help with psychological "pains" or "dis-ease" we are struck at once with the utterly different state of affairs from what obtains in medicine. There is no rounded field of knowledge generally recognised as basic for the understanding and treatment of human behaviour disorders. Instead there are various areas of knowledge and skill between which there are rigid barriers. And when those who inhabit one area attempt to communicate with those in another about what should be common

* Wilson, A. T. M. *Implications of Medical Practice and Social Case-work for Action Research*, The Journal of Social Issues, Vol. III, No. 2. Spring, 1947.

problems, anything can happen except, as a rule, mutual education. This position is complex and can best be understood in its historical origins.

Psychology itself is claimed by psychologists to be the science of behaviour. Now since behaviour is a property of total organisms, of persons in this context, one would expect a psychologist to understand people and their behaviour. It is well known, however, that the science of psychology did not begin as a science devoted to understanding persons. Instead, it started in the universities as the child of philosophy, physiology and evolutionary biology; and until the early years of this century a psychologist was very largely someone who taught the new subject in the university. Because of its scientific roots, the chief instruments of study of the psychologist were the controlled experimental method of the laboratory and the mental test. The clinical method did not come within his field. The experimental method and the development of mental tests proved extremely fruitful in the study of individual differences and in illuminating certain mental processes, for instance, those involved in intellectual activities and in learning. As a result of an increasing number of systematic studies using these methods, the body of psychological knowledge grew and the subject became a university course which students could take as their specialty. At the end of their training period such students were described as psychologists, and several began to be employed in education and industry. All went well as long as they did what their training had been largely devoted to, namely, the measurement of attainments or mental functions by standardised tests. But difficulties and dissatisfactions came from two sources. In the first place, the expectations from tests were not fulfilled. For the most part these were used to classify individuals on the basis of expected development in some particular respect; but the influence of many other factors always kept appearing and the predictions remained disappointingly low. (This is perhaps most strikingly seen in the field of aptitude testing.) Psychologists, in other words, began to realise more and more clearly from their own investigations that there was a great deal about the individual that they did not know. In the second place, institutions that employed a psychologist assumed that he was someone who would understand people and who would therefore be able to deal with their problem cases. In education, perhaps because the individuals concerned were children, the psychologist

did not so readily feel any deficiencies in his equipment, with the result that several of them began to work with " problem children ", the problems being either in educational progress or in general behaviour. Understanding of the individual increased quite considerably and several acquired skill in dealing with such problems. But, by and large, the advances were limited. Many difficulties could not be understood nor could they be treated. For such cases recourse was had on the theoretical side to the notion of an " abnormal psychology ", and on the practical side the help of the psychiatrist was sought. Thus, it was postulated that there were some individuals whose behaviour was governed by elements which did not enter into the normal personality, and it was then added that the psychologist could not be expected to account for or to deal with such individuals. These latter tasks were handed over to the psychiatrist.

Turning to the psychologist who entered industry, he too found his training was of limited value in equipping him to deal with the " problem worker ". He also encountered another difficulty, namely, the extent to which the worker's behaviour was governed by his group affiliations and by that elusive property of groups called morale.

The growth in knowledge of the individual which took place from the work of experimental psychology and from psychologists in education, child guidance and in industry led to a widening of the aspects of the individual that were studied. To intelligence tests were added tests of various attitudes and other facets of the personality. Also, psychiatrists began to make increasing use of intelligence tests. The result of these trends was that psychologists from the universities began to work in clinics and there has emerged within the last decade a number of psychologists who are described as clinical psychologists. In this country, the majority of these psychologists work in child guidance clinics, though there is a growing number coming into adult work, chiefly in psychiatric clinics (with a few working in neurological clinics). Some of these clinical psychologists have acquired training for the psychotherapy of children but, on the whole, a therapeutic role has been either denied to them or rejected by them. In most countries doctors in charge of psychological clinics do not feel that psychologists have a background of either theory or practice for a therapeutic role, and the psychologist is forced to work as a mental tester. Recently,

however, a large body of psychologists in America (see Harrower)* have decided to change this position by equipping themselves for a responsible position in treatment. A corresponding development has not yet occurred in this country. Indeed a leading school of clinical psychology specifically states that clinical psychologists should on no account be involved in therapy as thereby lies the path away from science (Eysenck, 1949)†.

What is wrong with the present position ?

As I see it, the answer to this question is simple. It is that the body of knowledge which the student gets from a university course in psychology has little or no relevance to understanding people. *Words* about the dynamic psychological view of the personality, by which is meant the interpretation of the individual as a more or less integrated group of psychological need-systems, are heard frequently enough by the student; it is the *music* that is missing. In fact, the excessive preoccupation of academic psychologists with the experimental method, and in more recent years with statistical methods and factor-analysis, shows that there is little real appreciation of the unique individual in a dynamic way. From my experience it is no exaggeration to say that the young psychologist straight from the university is a complete layman in the understanding of what a patient's emotional conflicts are about. He comes to the individual and his difficulties with a knowledge that enables him to classify the person in various ways by assessing various functions. This is useful only in a limited way, for the giving of various scores to the patient in respect of certain attributes is not to understand him—and although given the name of psychodiagnostic, such data are often of little help in treating the patient. It is a sad thought that British psychology has remained so fixated to what Lewin‡ has termed the Aristotelian tradition in its scientific thought. The brilliant work on the technique of factor-analysis, instead of providing instruments to follow in the wake of the essential task of understanding the individual as a dynamic entity, is being used as the way to find out about

* HARROWER, M. R. (Editor). *Training in Clinical Psychology*, Josiah Macy, Jr. Foundation, New York. 1947.

† EYSENCK, H. J. *Training in Clinical Psychology : An English Point of View*, The American Psychologist, Vol. r, Number 6. June, 1949.

‡ LEWIN, K. *Dynamic Theory of Personality*, McGraw-Hill Book Company, Inc., New York. 1935.

the individual from the start. How can what is relevant in a dynamic sense be isolated in this way? To take an example, factorial analysis of tests may well have revealed the psycho-analysts' triad of obstinacy, parsimoniousness and orderliness in the obsessional character; but how would the apparently basic connection of these to what the psycho-analyst calls "anal erotism" have been discovered except by treating the patient? Much of what is advocated by some of our psychologists as clinical work is in fact not clinical work at all. It is really research work on patients. Research work is of fundamental importance to clinical psychology as to clinical medicine. But unless the psychologist takes part in therapeutic endeavours how is he to discover what is most relevant? Is it satisfactory that the most relevant problems should be given to the psychologist by the medical psychologist? The research worker surely ought to know by first hand experience how these problems are isolated and defined. How else can he make an effective integration within his own mind? On the other hand, if he hopes to identify what is dynamically relevant by purely experimental and statistical techniques, then, to quote the words of one of my colleagues, he is apt merely to execute an "Aristotelian extraction of false teeth". (In passing it might be noted that the experimental method has proved more fruitful applied to neurological patients; but it is interesting that a great deal of this work has been related to retraining the patient in his damaged functions, *i.e.*, to a therapeutic relationship.)

The medical psychologists

Two kinds of clinicians dealing with psychological problems have emerged in the medical field, both of whom are certainly in close touch with persons. These are the psychiatrist and the psychotherapist, the latter being referred to often as a medical psychologist.

The training of the psychiatrist in most schools is at present heavily weighted on the organic side. His appreciation of psychodynamics is as a rule superficial and when faced with behaviour he does not understand, he too postulates abnormalities—although this time those are in the inherited constitution of the individual. On the treatment side, his lack of understanding is reflected in the readiness with which many psychiatrists have recourse to physical methods, such as the shock therapies, for all kinds of psychological troubles. As with the educational psychologists, it is not to say

that this approach is without value; it is merely to stress its grave limitations for the building up of a body of scientific psychology.

The person who most justifies the term clinical psychologist at present is the psychotherapist. There are various groups of psychotherapists but the outstanding ones are the psycho-analysts (those who follow Freud) and the analytical psychologists (whose work derives from Jung). Much is made of the differences between these groups, although, in fact, there are important common basic principles, especially in regard to the role of unconscious motivation. A Jungian and a Freudian have far more in common with each other than either has with the general psychologist in discussing a person. In any case it is highly likely that time will see the disappearance of their differences as more systematic studies are pursued. The psycho-analysts and the analytical psychologists are the only clinicians who undertake the treatment of psychological difficulties in terms of the actual dynamics of the patient's behaviour with the therapist. And because of their preparedness to help the psychological sufferer on a psychological basis they have been given access to regions of the mind hitherto denied to psychology.

It was almost a historical necessity that the area of psychology explored by Freud and those inspired by his work should have taken place within clinical medicine. One of the most significant features, however, about the two main groups of psychotherapists is that, though their work started in medicine, both groups have created many non-medical therapists. Working relations between the lay and the medical therapists are well-defined and the basis of their good relations is, of course, the fact that the training of both is a common one. Few medical psychotherapists in this country would like to see the non-medical debarred from this role. Their value may be exemplified by the outstanding contribution in this country in recent years of Anna Freud, the late Susan Isaacs and Melanie Klein.

Despite their enormous contribution to understanding the individual, the theories of the psychotherapists have not been linked up with the rest of the psychological sciences. Perhaps this has been because of their historical isolation and the fact that they have been too much immersed in treatment chiefly for economic reasons and the very heavy pressures put upon them to help persons in pain. It is often said that this lack of integration into general psychology is due to their theories being expressed in such bizarre

terms. There can be little doubt that this is not the important reason. It has been one of the disturbing discoveries of the psycho-analysts that what the psychologist observes, or fails to observe, in the individual is very much a product of his own personality. For this reason, the psycho-analysts and the analytical psychologists insist on those who train with them having a prolonged personal analysis in order that they may become aware of their own inner needs and thereby minimise their manipulation of their own perception of the external world to suit these needs. This process of having to train the observer to see certain phenomena which only the trainer recognises presents an awkward problem in scientific methodology. It is so easy for the outsider to think that the psycho-analyst "suggests" so much to his patients and even gets them completely under his domination. (Two or three years' work on recalcitrant symptoms often makes the analyst wish he had such miraculous powers of suggestion.) This problem, however, is by no means insurmountable and some steps towards the scientific analysis of what in fact the analyst does have already been taken.

"Where do we go from here?"

It has been my main contention in this article to show that the present position in clinical psychology is totally unsatisfactory and that it must change. I believe that the only satisfactory change will be a quite radical one—and one that can only be worked out during the next few decades. In the first place, the whole present position of psychology as a subject taught to undergraduates in the universities must be reconsidered. Arguments about which faculty psychology should be in are to my mind futile, for psychology, like medicine, must be a practice and a theory. It needs a faculty or school of its own within the universities if the appropriate practical institutions are to be created for the treatment of the needs of individuals and groups. A bold detachment from existing stereotypes in our ways of thinking will be required. A course of training in such a faculty will possibly include quite a lot of what is now given to the doctor and there will be many roots in medicine and in the treatment of individuals with psychological problems. But there will also be equally important roots in social soils. The teachers in such a school will be predominantly individuals with considerable experience in the treatment of individuals and groups and communities, and who will also be able to use this experience in building up a

body of relevant scientific knowledge. I also believe that the majority of such teachers will have undergone a personal analysis as part of their training.

To treat the problems of individuals and groups is no light responsibility, and a course of training to qualify as "a psychologist" would certainly have to be of several years' duration. The student completing this course would be analogous to the doctor. He would be able to be a general worker in the field of treatment of individuals and groups, and, later, he might specialise in a part of the field. These psychological schools would have all the facilities for staff primarily interested in research or in teaching. From the point of view of linking with other faculties in regard to general university education, their staffs would provide general courses; but to have taken one or two years of these would no more qualify the student to call himself a psychologist than would two years physiology entitle anyone to say he was a doctor. This may appear a pipe-dream at present; but I believe some such development to be essential if the psychological sciences are to flourish. That it may not be so far off is perhaps suggested by the recent developments in psychology in America where the training of clinical psychologists is proceeding apace. Furthermore, the new Harvard Department of Social Relations shows an attempt to bring clinical and social psychology together with some of the social sciences. It is also worth noting that a considerable number of senior American university psychologists are now undergoing personal analysis as part of their all-round training.

For the immediate future, nothing can be forced. It can only be hoped that more and more psychologists will go to work in clinics with the intention of making themselves able to undertake treatment, and that our university departments will make significant linkages with therapeutic institutes. Attempts to integrate the two main streams of development by having a lecturer within the psychology department to give lectures on "abnormal psychology" will not get us anywhere. We need institutions in which a common intellectual climate will be created by the work within the same place of psychologists of all kinds. General psychology will then be widened and the present medical psychology will be enriched by the ways of thought of the general psychologist, the social psychologist, the social anthropologist, and others. Such creations will need bold planning and a conviction of their worth. They will

be apparently expensive because groups of senior workers are required; it is no use perpetuating the "prima donna and two chorus-girls" pattern in institutions which are to do work of such cardinal importance.

Summary

To sum up, the present position in clinical psychology is confused because of the hitherto separate paths of medical and general psychology. Nevertheless, the differences between medical psychologists and general psychologists have little to do with the former being doctors. They reside in whether or not the psychologist understands, and is experienced in the use of, concepts about the unconscious. As long as experience in these regions of the mind is either denied to the general psychologist, or avoided by him, there will not develop a coherent body of scientific knowledge that will equip the psychologist to become clinical in the broad sense of being able to understand and deal adequately with the problems of persons in whatever field he works—whether it be in education, industry, or (in the more narrowly conceived meaning of clinical work) the treatment in hospitals of psychological disturbances in behaviour.

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TRAINING SOCIAL WORKERS IN UNIVERSITIES*

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In almost every university and university college in the United Kingdom at present there is to be found a school for the training of social workers. By most members of universities these schools are regarded as poor relations, possibly worthy but certainly not respectable, to be accommodated on the premises with mixed feelings of patronage, sympathy, and guilt. They are believed to be laxer in their entrance standards than other schools. Often they work for something less than a degree: a diploma, a certificate, even in one instance a testamur. Their students are treated as inferior, as sub-standard specimens addicted to neuroses and good works. Members of more accepted schools treat them with varying degrees of aloofness, and wonder more or less explicitly why they ever came to be in a university at all.

The desire for academic standing

It is under the pressure of this disdain that the schools of social studies have developed. Their character has been largely moulded by resentment and resistance against it. In some measure their resistance has been successful. It is widely said for instance that, with the current expansion of the social services, the status of social workers has improved, and hence a better type of student is being attracted to the courses. But though this appears to be true, it is still usual for entrance standards in schools of social studies to be laxer academically than elsewhere, however strict they may be in other respects. Degrees in this field are still uncommon, and where they exist have not yet secured any real status. There is still an air of protesting too much about academic standards in these schools—an air that is only too familiar to the author of this article, who teaches in a Colonial university.

It is probable that the training of social workers has been distorted by the desire of schools of social studies for academic recognition. In so far as it has occurred this distortion seems to have taken one or more of three forms. First, some subjects, such as economics,

* This article was prompted by a tour in which the author visited several of the leading Schools of Social Work in universities in the United Kingdom in 1949, in preparation for establishing a School in the University of Malaya.

government, and psychology, have been taught in a way that seems designed rather to yield academically respectable syllabuses and examinations than to be relevant, helpful and assimilable by a social worker in training. In some courses, indeed, a virtue has been made of the practical necessity of occasionally teaching these students in common classes with degree students. Next, there has been some tendency to overload the courses so as to combine academic weight with practical training. Finally, the desire to profess degree standards when three years are allotted may have been responsible for some failure to co-ordinate the academic teaching with the practical work, and to treat the former as an adequate theoretical study of certain branches of the social sciences.

These distortions are, however, much less serious than might have been expected; and in so far as they exist they are the responsibility not of the schools of social study but of the universities themselves. The presence of these courses within universities is a phenomenon of some intrinsic interest which has received far too little attention outside their own circle; and it raises many of the fundamental issues concerning the relation of universities to society as a whole.

Varied careers of social workers

A survey of the careers for which these schools prepare students raises a number of interesting questions. The list of careers appears at first sight like a catalogue of a jumble sale. Personnel managers, secretaries of voluntary societies, psychiatric social workers, community centre wardens, probation officers, welfare officers—one is tempted to wonder whether it is merely by chance that hat-box varnishers and dentists' mechanics have been omitted. Closer scrutiny reveals, however, that though the methods of work differ quite widely, these occupations are all concerned with remedying some disharmony between the actual relations of individuals to each other and an accepted minimum standard that is demanded by public opinion; and they are concerned with finding a remedy mainly by helping rather than restraining. Much of this work was formerly done by religious bodies and some is still done by them. The courses of training began to be given in universities because it was recognised that much of the necessary knowledge both of institutions and of techniques in human relations was being imparted there. Training in the actual practice of social work was still given on the job itself; but social workers, as they became more

conscious that they were dealing with problems that they did not understand, asked for these courses to be arranged for those who were training. And the courses, beginning in several instances as extra-mural activities, secured recognition for themselves by the award of university diplomas.

It is worthy of note that at first the courses for social workers were given in universities simply because this was at that time the only practical way of securing teaching of the necessary standard in the social sciences. The number of social workers was small, and the social sciences were taught hardly at all outside the universities themselves. This situation, however, no longer prevails. Every year several hundred social workers are awarded some kind of qualification. Graduates qualified to teach the social sciences are numbered in thousands. Adult education has expanded so enormously that it would be absurd to pretend that a two-year training in the relevant social sciences could not be given outside a university. If social workers are to continue to train in universities their presence there must be justified on other grounds.

Two such grounds are usually given in current discussions of the subject. One is that a social worker needs the atmosphere of broad humanity, tolerance, and respect for fact and logic, that is found pre-eminently in universities; that we cannot allow the care of the very fabric of our society to be in the hands of those who have had no contact with its highest values. The other is that social work is rapidly becoming an established profession and that its professional training is of a type, analogous to medicine or the law, such that it should be conducted in a university.

The former argument was commoner before the war, though it still survives; the latter is more strongly advanced now. To both of them there is a short answer. Why are social workers given a training of only two years? Is the fabric of our society safe in the hands of people so inadequately trained? Are the professional techniques of social work so few and simple that an adequate standard can be acquired in one third of the time required by the medical profession?

Is the two-year course adequate?

Of course most of those engaged in training social workers would protest that two years are not sufficient. But that is not a complete answer. No doubt the work would be done better if more time were given to training. But are the careers themselves such that

adequate students could be attracted for a longer training? There is some evidence that existing conditions would attract adequate numbers of students of adequate quality for a three-year course. But probably a considerable sacrifice of essential personal qualities would be necessary if strict university entrance conditions and a three-year course were demanded everywhere. And even a three-year course, embodying considerable periods of practical training, would hardly be up to the standards of the other major professions.

It is primarily a matter of what status and salary the community is willing to offer its social workers. The insistence on university training combined with the lowness of the salary and status accorded is indicative of an important weakness in our social attitude to this question.

The function and status of the social worker

In the modern liberal state the social worker is certainly not the creator or even the guardian of society's system of values. He does not build the fundamental fabric of social institutions. Society as such has no system of values, or rather no more than a minimum system. The creation of values, the building up of social institutions, are duties of the individual. So far as possible all those who can benefit by it should be given a liberal education to enable them to fulfil these functions as well as possible. But this is simply their privilege as citizens.

Unluckily this admirable plan has not been working too well. A society that tried merely to hold the ring has had to throw more and more sawdust on the floor.

Of course we all feel pretty guilty about this. Social services and all the apparatus of social work are in part an emblem of this guilt; and in this capacity they are despised as something hardly respectable, hardly fit for the light of day. But from some faint echoes in our tradition, floating down perhaps from the Gothic buildings themselves, comes a vague sense that this despised work has some importance, that it may bear to some dimly seen values in our universities a relation analogous to that of other professions to truth. So we bundle the poor scapegoats in, pell-mell with budding architects, doctors and librarians, stir them up for two years with a rather self-conscious air, and then send them forth to their tasks.

Now this just will not work. The people responsible for training social workers cannot understand their part. Their knowledge of theology is quite inadequate for the training of scapegoats. More-

over, being usually social scientists, they are often predisposed by their training to the strange belief that the practitioners in the social services should be doing something to remould society itself. They cannot, of course, teach them in two years what they should do. But they refuse to admit that their function is wholly a ritual one. Though their background should no doubt teach them humility they may even interfere with the smooth running of other faculties. An energetic Tutor in Social Studies may even go so far as to ask the Professor of Economics for a one year course in some horrid monstrosity called " Social Economics ".

We need not let this dilemma compel us to do anything rash. It is not necessary, for example, for Professors in the Academic Disciplines to make up their minds what should be taught in the schools of social studies. That is perhaps too much to expect of the custodians of Society's highest values. But the universities are given the role of custodians not merely of Society's highest values, but of something much more serious, something on which even academic salaries depend. I refer, of course, to academic standards. The Professor of Ethics may say, with all the arrogance of academic humility, that he leaves it to his juniors to help students decide what they ought to do. But it is at his peril that the Dean leaves the designing of a statute to his secretary.

Feelings of guilt

The universities appear to have let themselves be pushed into a position in which they fail in their professional duties, partly because they have vague feelings of guilt about social workers that have not been properly analysed, and partly because a liberal attitude to values makes it seem impracticable to lay down any proper standards in vocational work of this kind. To deal with the problem of the social worker's relation to the university we must distinguish between two different conflicts: the conflict between the academic and the vocational, and the conflict between a liberal state and a welfare state.

With the former conflict all universities are now pretty familiar. We draw the line in different places, but probably few would now wish either to exclude vocational courses altogether or to make universities wholly vocational. Indeed we can laugh at ourselves about the whole question. The mathematician's contempt for the engineer's slick tricks, the chemist's scorn of the medical student's

cookery, are subjects for mirth not for high seriousness. Why should we not be as easily amused in this other sphere? Why not merely laugh at the social studies lecturer in ethics, so blind to the charms of prolegomena that he gives students guidance about respecting the confidences of neurotics or conniving at clients' breaches of the law?

Reluctance to teach ethics

The reason why we do not laugh, but feel uneasy about the social worker and indifferent to his standards, is that we still hark back to the notion that it is wrong to teach students what to do about human relations; not impossible to do it without oversimplifying, but wrong to do it at all. The attempt savours of totalitarianism, of a set and fixed perfection to which all are to be moulded.

Now it is true that any departure from the liberal point of view, in economics, in ethics, in psychology, may lead straight to tyranny, But this is not susceptible to proof. Because we must act, and so act on an interim report of our knowledge, it does not follow that we must postulate a closed system of knowledge. Error gives evidence of its presence, even to those who do not know the whole truth; and the humble may learn much from a sincere effort to do the right thing. In spite of some extreme statements of the liberal view it is possible that groups of people, or their leaders or representatives, may be able and willing to learn in this way. It is even possible that teachers who take the responsibility of giving advice may sometimes learn from their own errors as well as from reading of the errors of others.

Ideas of this kind cross our minds from time to time; and hence the uneasy feelings of guilt remain. It is possible that in time they will drive the universities to accept social work as a vocation capable of respectable academic study. If it is permissible to give an interim report, for practical implementation, on our knowledge about the values, the institutions, and the techniques, involved in human relations, with special reference to those where improvement is most obviously needed, then obviously the place for study of this kind is in a university. It remains to enquire what kind of a course should be adequate to ensure genuine academic standards.

A basic course

Clearly the selection of subjects will be made primarily with a view to professional relevance rather than to academic inter-

relations. This would normally imply that to achieve approximately similar standards, without the advantages of mutual aid among the different subjects, would require a rather longer course than was required of equivalent students in a predominantly academic field. If rather exacting personal standards have to be imposed at entrance, and this narrows the field in relation to more strictly academic qualifications, the course will have to be still further lengthened for reasonable academic equivalence. Moreover this leaves out of account any time spent in acquiring any skills and techniques other than those specially related to learning. It is therefore almost inevitable that a three-year course for social workers should fall below a full degree standard, even if it included no training in technical social skills, and even if the academic standard at entrance were never relaxed in favour of greater selection for personal qualities.

Professional courses of three years in other subjects do, of course, exist in universities. But it would probably be fair to say that they are generally looked at askance by the universities themselves; and this is in spite of exclusion from the courses of most non-academic material and insistence on adequate standards of entrance. A degree for social workers on these terms might cause no more than a slight uneasiness; but at least this should be the limit of concession. A course that included substantial periods of practical work, designed as training in technical social skills, should not be accepted as a degree course unless it covered at least one year longer than ordinary academic courses.

This principle is implicitly recognised in many schools of social studies by the encouragement given to the post graduate student, and the attempt that is often made to secure students who have taken a "relevant" degree. There appears to be a widespread feeling, though for obvious reasons it is not often made explicit, that if only it were possible to have four years—or perhaps four and an additional long vacation—a course could be given that would satisfy the School's academic aspirations.

There are, however, technical reasons that make the one-year course, following a relevant degree, a rather unsatisfactory compromise. It is not easy to secure a fully relevant degree, or to define the conditions of entry sufficiently accurately. Sometimes an Arts degree produces a background of maturity and tolerance that materially assists the acquisition of professional skill. Some-

times one or more of the courses giving factual information are more or less parallel to courses taken for a degree in economics or psychology. But though these facts may assist postgraduate students, the actual design of a relevant course, which can hardly be adapted to the needs of one individual, is a matter of considerable difficulty.

Technical training in social agencies

Nor is it a simple matter to plan a three-year course which excludes the acquisition of practical skills, and to concentrate this acquisition into one postgraduate year. The task should not, indeed, be wholly impossible. It would involve a rather artificial division of the work in which, during three years, visits to various social agencies would be followed by a fairly large number of short spells of work in such agencies, treated rather in the spirit of laboratory work under close tutorial criticism; the function of this would be partly to deepen and solidify knowledge acquired from lectures and books, and partly to train certain habits and attitudes. It would be followed by one year largely devoted to technical training based perhaps on a university settlement or community centre, perhaps on a case-work agency partly under the university's control. The theoretical work would be similarly divided, with probably most of the basic material required from the social sciences put in in the first three years, and the fourth year devoted to a good deal of practical, legal and technical material, and extensive seminars and discussions on working experience.

To most of those actually teaching in this field such a division would, I believe, seem both arbitrary and wasteful. It is not arbitrary, for it is based on an attempt to separate academic from vocational, and it would give a reasonable possibility of real degree standards in the first three years. But it is impossible to deny that it would be rather wasteful from the point of view of producing professional competence. A great deal of the practical experience in the first three years would tend to be superficial; and a further objection is that students during this whole period would use more of the time of working institutions, and contribute less to them, than under a system in which the two parts of the training were better fused.

The conclusion seems plain that a single four-year degree is desirable, with entrance qualifications at the full academic level in addition to any personal qualities that seem necessary. In the

interest of their general standards and traditions the universities should press for this as a minimum.

It is clear, however, that it is quite impossible economically to secure adequate candidates and train them adequately for such a standard throughout the field of social work. This may be partly because the attitude of society to social workers is still in part a blend of liberalism and ritual; if so, we may expect some changes in the future. But there may also be an important and useful class selected by qualities of character that will do good social work and should be trained for it, at a level different from that proper to a university. The analogy of medical and nursing training is perhaps relevant here.

Institutes of Social Work

Training at this level should gradually be established outside the universities. Once a fully vocational course of academic status is admitted the case for the inclusion of other courses in universities will be weakened; and this is so even if a majority of social workers are limited by prospects and costs of training to a two-year course. The connection of such courses with universities should not, however, be wholly severed. On the one hand the actual training should be done, in the main, by people with academic training in the professional social studies degree. On the other, coordination of practical work, cooperation in relation to research, and professional relationships, could be worked out through the establishment of Institutes of Social Work, not necessarily on the rather ambitious lines suggested by Miss Younghusband*, but after the manner of Institutes of Education. This might result in the continued presence of most training courses even at the non-academic level in university towns; but it would not therefore be a distinction without a difference. If a clear division could be achieved there would not need to be any assertion of academic standards by those not achieving them, while the degree course would acquire a considerably enhanced status.

This division, which should benefit the profession and the universities alike, has probably been obstructed by a confusion of thought. There are two battlefields, not one. The defenders of liberal ideas of value may have no stomach for the fight against professionalism. But we should not allow vague feelings of appeasement and goodwill to bring a Trojan horse into the academic fortress.

* *The Training of Social Workers.* Report to the Carnegie Trust.

RESEARCH IN AGRICULTURE

By F. T. Brooks

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In 1900 the Rothamsted Experimental Station, founded in 1843, was virtually the only centre for agricultural research in Great Britain. When the importance of the pioneer investigations at Rothamsted on crop growth and those on animal diseases by Pasteur in France was realised, impetus was given to scientific enquiry into agriculture in many countries. Since about 1900 progress has been rapid, and most fields of research are now comprehensively covered in Britain. Civilised man realises that with the constant increase in world population and with the limitations of land available for agriculture there is real danger of food shortage in the years ahead. The main hope of stability lies in the conservation and possible enhancement of soil fertility, in improved productivity of crops and farm animals, and in the control of pests and diseases. These are the main objectives of agricultural research.

The development of agricultural research, especially in Great Britain

The first great expansion of agricultural research in Great Britain occurred in connection with the Development and Road Improvement Funds Act, 1909. In 1911 the Development Commissioners, in consultation with the Agricultural Departments, formulated schemes for the establishment of the present system of agricultural research institutes, now numbering more than twenty, and for other scientific services to agriculture. In 1931 the Agricultural Research Council was created under a committee of the Privy Council, charged with the scientific oversight of all agricultural research in Great Britain and acting as the adviser of the Agricultural Departments and the Development Commission in regard to the estimates and programmes of work of all agricultural research institutes. In addition the Council has separate funds for research under its own auspices in various kinds of organisations including university departments.

During the recent war a survey was made of the further needs of agricultural research in Great Britain. It became clear that new organisations were required for the study of animal breeding and genetics and for researches on the physiology of farm animals;

these are now in course of development. In addition better facilities for investigations on the production of vegetables and glasshouse crops were found to be needed; these also are being developed.

Great expansion of agricultural research has also occurred in the Dominions and Colonies. Before India, Pakistan and Ceylon achieved independence much progress had been made in establishing research centres. With the greater importance now attached to tropical territories Colonial governments are alive to their responsibilities for research on plant and animal production. In Malaya and Ceylon, Rubber and Tea Research Institutes respectively were established before the recent war, distinct from the agricultural departments. In the West Indies centres for banana and cocoa research have been founded, in the Gold Coast an institute for the investigation of the serious virus diseases of the cocoa tree is in active being, in Nigeria much attention is being paid to the oil-palm, and in East Africa a new research organisation for agriculture and forestry is being developed. The ground-nut scheme in Tanganyika Territory has its own research staff.

The principles of agricultural research are the same all the world over, and close liaison is fostered between workers at home and abroad by the various authorities.

The scope of agricultural research in Great Britain *

It will be convenient to consider the scope of agricultural research under the three headings of soils, plants and animals, although there are innumerable inter-relationships. Owing to limitations of space only selected topics can be discussed. It must also be remembered that great advances have recently been made in the methods of agricultural experimentation from the standpoint of statistical validity. Research centres for statistical methods in relation to agriculture exist at Rothamsted, Cambridge and elsewhere.

Soils.—The chief centres for soil research are the Rothamsted Experimental Station and the Macaulay Institute, Aberdeen. Soils are the source of the mineral and nitrogen nutrition of plants so all matters concerning manuring and microbiological activity in the soil come within the purview of these institutes. At Rothamsted there are separate departments for pedology and for the study of the physics, chemistry and microbiology of the soil. At the

* A new edition of "Agricultural Research in Great Britain," compiled by the Agricultural Research Council and published by H.M. Stationery Office in 1943, will appear shortly.

Macaulay Institute special researches on the formation of humus and its rôle in the soil are in progress.

Much attention has been paid recently to the need of certain trace elements, such as boron, manganese, cobalt, zinc and copper, for the proper nutrition of some crops and animals. These investigations have been shared by many institutions, including some in Australia, New Zealand and Canada. By consideration of trace element requirements some infertile lands can now be made productive.

Water movement in the soil and drainage problems are being investigated at the Cambridge School of Agriculture. Other matters under enquiry elsewhere are the efficacy of the placement of fertilisers in direct contact with the seed, the relative efficiency of deep ploughing, and the utilisation of sewage sludge as a manure.

Plants.—Fruit cultivation in its many aspects is studied at the research stations of Long Ashton, Bristol, and East Malling, Kent. Both have large staffs comprising pomologists, botanists, chemists, biochemists, plant pathologists and entomologists. At Long Ashton nutrition has been investigated intensively, and at East Malling the influence of the various kinds of root stocks on cultivated varieties of apples, pears and plums has been examined with most valuable practical results. In addition, methods of pruning and cultivation in the two environments, the influence of plant " hormones " on fruit setting and premature fall, the problem of the fruiting of certain apple varieties only in alternate years, and pests and diseases have all received close attention. Long Ashton is also the centre for research on the production of cider and other fruit juices, but as this concerns processing the Department of Scientific and Industrial Research is equally interested with the Agricultural Research Council. East Malling and Wye College, Kent, investigate the problems of hop cultivation.

Researches on the breeding and genetics of fruit are one of the principal activities of the John Innes Horticultural Institution (now moved to Bayfordbury, Herts.). New varieties of cherries, apples, pears and other fruits have been bred and are being tested commercially. Promising varieties of raspberries have been developed at East Malling, and new kinds of black currants and other fruits at Long Ashton. In Scotland varieties of strawberries have been bred which are resistant to Red Core disease, and in this way strawberry growing is being resuscitated there. The Cambridge

Horticultural Station has also produced some valuable new varieties of strawberries.

In plant breeding generally lies one of the greatest hopes for increased productivity. It is now recognised that varieties of crop plants must be adapted to their local environments if they are to give the maximum yield of good quality produce. With the multiplicity of different environmental conditions of soil and weather in Britain it is obvious that a very wide range of crop varieties is required. The principal plant breeding institutes for agricultural crops are at Cambridge, Aberystwyth and Edinburgh. Improved varieties of wheat, barley, oats, clovers, grasses and potatoes have been produced, many of which are being widely grown. With regard to vegetables the Cambridge Horticultural Station has been the chief centre for the development of better strains, but it has now been absorbed into the new Vegetable Research Station near Warwick. Researches on plant genetics are also carried out at the John Innes Horticultural Institution and in university departments.

Investigations on glasshouse crops are chiefly undertaken at the Cheshunt Research Station, Herts., but the facilities are inadequate for such an important industry so a new institute is to be established. Ornamental plants, especially bulbs, need further study, and plans are being formulated for more intensive research. The Royal Horticultural Society, in connection with its gardens at Wisley, Surrey, is also much concerned with investigations on ornamental plants and vegetables, as are the horticultural department of Reading University and the botanical department of Manchester University.

Plant physiologists are included in the staffs of several research stations, and there is a special institute of plant physiology attached to the Imperial College of Science and Technology and closely associated with certain aspects of the work at East Malling and Rothamsted. The problems of applied plant physiology are extremely complex, and whole teams of workers will be required to elucidate some of them. Research in plant physiology is actively pursued in certain university botanical departments, and the Agricultural Research Council maintains a research unit of plant biochemistry at Cambridge. Trained investigators, however, are few both in the academic and applied fields. One of the most urgent needs of the moment is a more intensive attack on the innumerable physiological problems that await solution.

The study of plant diseases is an important aspect of agricultural

research. Plant pathologists are stationed at most of the research stations, and by their detailed studies many important diseases have been brought under control, sometimes with the aid of resistant varieties produced by plant breeders. In recent years special enquiry has been directed into the menace of virus diseases. Those of the potato crop have been thoroughly studied at Cambridge, Rothamsted and Edinburgh, with the result that with the assistance of the National Institute of Agricultural Botany and the Departments of Agriculture seed tubers are now obtainable throughout the country which are virtually free from virus infection. Virus diseases of strawberries and raspberries are receiving much study at East Malling, and the Agricultural Research Council has set up a special organisation to investigate raspberry viruses in Scotland, where until recently this cultivation was so successful. Researches on certain fungus diseases of potatoes and on problems of tuber storage are being undertaken by members of the scientific staff of the Agricultural Research Council, partly in co-operation with the Scottish Department of Agriculture. Lastly, much research on plant pathology is undertaken in universities, sometimes assisted by special grants from the Agricultural Research Council.

Then there are the innumerable problems of insect and eelworm damage to plants. Some of these pests are now under control—and in this connection the newer insecticides such as DDT and gammexane have been very helpful—but others await defeat. Many research stations and universities have entomologists on their staffs, and a research unit to study insect physiology is provided by the Agricultural Research Council in the Cambridge department of zoology. Insect migration is studied at Rothamsted and in the Oxford department of zoology. Eelworm damage to crops, especially potatoes, sugar-beet and strawberries, is assuming serious proportions, and the control of these microscopic worms is one of the chief problems facing agriculture and horticulture today. The principal centre for the study of nematodes is now at Rothamsted.

Happily, the Agricultural Research Council is a very flexible organisation, one advantage of which is that new discoveries and applications of a promising kind can be exploited and assisted without delay. Thus during the war, when new kinds of herbicides for the control of weeds were discovered and when it was important to increase production of oil-containing seeds and other special crops, fresh centres of research were established; these are now

maintained in the Oxford department of agriculture by the Agricultural Research Council.

Animals.—Owing to limitations of space only brief reference can be made to animal research although this is at least as important as the aspects already examined. The public is conscious of the heavy toll of disease in farm animals and poultry, and one of the main objects of research is to reduce its incidence. Disease in animals is due to a great variety of causes, including viruses, bacteria, protozoa, parasitic worms, insect pests, nutitional and functional disorders. These maladies are being studied at the research establishments of the Ministry of Agriculture, the Agricultural Research Council, the Animal Diseases Research Association (Moredun, Edinburgh), the veterinary colleges, university departments of animal pathology, and the Animal Health Trust.

Problems of animal nutrition are the main field of investigation at the Rowett Research Institute, Aberdeen, and are also studied in certain university departments of agriculture. Those of animal reproduction, including artificial insemination, are being investigated at Cambridge under the Agricultural Research Council. As previously indicated, a new research institute for the study of animal physiology in its widest aspects is being established near Cambridge by the Agricultural Research Council. The research organisation for Animal Breeding and Genetics is now getting into its stride, with headquarters at Edinburgh and with various field stations.

The National Institute for Research in Dairying (Shinfield, Reading) is one of the largest research organisations in the country. Dairy research is also conducted at the Hannah Research Institute, Ayrshire, and in some university departments. The problems of dairying are multifarious, including those of milk production in relation to the cow's nutrition and standards of purity and fat content, and the making of butter and cheese. Poultry investigations are carried out at Edinburgh and Cambridge, where new breeds of fowls have been developed showing sex-linked characters on hatching which enable the sexes to be determined forthwith.

The National Agricultural Advisory Service in England and Wales and the Advisory Service in Scotland give information to the farmer or grower about all aspects of agriculture and horticulture. Many of the officers are highly qualified specialists and they frequently have opportunity to investigate important local problems.

Training for agricultural research, and the need of recruits

Although some aspects of research, e.g., in crop and animal husbandry, can be pursued by those well instructed in agriculture or horticulture, the fundamentals of agricultural science can only be properly investigated by those adquately trained in pure science to the honours standard and preferably with some research experience. The Agricultural Research Council recognises this in its annual awards of training grants and research studentships to graduates in science or agriculture. These are for the study of special subjects not already covered or for investigations in some branch of science related to agriculture, including animal health. Great care is taken to attach these students to the university department or research institute where they will obtain the best training or the most expert supervision in research. The Ministry of Agriculture awards post-graduate scholarships in husbandry, economics, statistics and agricultural engineering, and the Colonial Office offers probationerships for advanced training in agriculture or agricultural science.

With the recent expansion of university facilities and the development of new research stations there is ample opportunity for advanced training and research in most branches of agricultural science. There is need, however, for further university instruction in genetics, animal physiology, biochemistry and soil microbiology.

In nearly all branches of agricultural science the need for trained personnel, particularly of the highest quality, is acute both at home and in the tropical territories. It would be worth while for headmasters to call the attention of their sixth form pupils to these openings, and for the universities to encourage further recruitment for agricultural science. It is doubtful whether this field gets an adequate share of the ablest brains of the student population, and it would be in the best interests of the country if more of the outstanding men and women became interested in biological subjects and subsequently embarked on a research career in cognate branches of agricultural science. At present the greatest need is for biochemists, animal physiologists, zoologists, entomologists, helminthologists, plant and animal geneticists, plant physiologists, plant pathologists interested in virus diseases, bacteriologists, and statisticians.

TWO WOMEN *

By Shena D. Simon

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These books concern two women and one man. One was written and the other edited by a woman. In *The Webbs and Their Work* Mrs. Cole has collected articles from eighteen distinguished contributors including Bernard Shaw, Lord Beveridge, Edward Pease, Leonard Woolf, R. C. K. Ensor, John Parker, M.P., G. D. H. Cole and herself. Those articles cover all aspects of the Webbs' life and five of them attempt—with success—to separate the work of Sidney from that of Beatrice; but nowhere is there a clear line of demarcation after 1892 when they joined forces. As F. W. Galton says in " Investigating with the Webbs ", " their minds worked so closely and harmoniously together that it is hard to disentangle the parts played by each of them individually in the final result."

Essays on the Webbs and their work

The table of contents, read in conjunction with the list of their researches into local government, trade unionism, co-operation, Soviet Communism, etc., given by Leonard Woolf in his article on " Political Thought and the Webbs ", shews vividly the wide range of their activities. The founding of the Fabian Society, of the School of Economics, of the *New Statesman*, of the Labour Research Bureau, their great history of local government and studies of trade unionism and co-operation, the four years' campaign for the break up of the Poor Law which followed years of hard and joint work on the Poor Law Commission, work for the new L.C.C. and for the establishment of the University of London, and last, but by no means least, their voyage of discovery to the U.S.S.R. when they were both over seventy, *and* the production of the classic work on this subject, staggers one afresh by the magnitude of their achievements. With so many matters under investigation, and so many irons in the political fire, many at the same time, it is difficult to understand why some people talk of the narrowness of the Webbs. Research, propaganda, uncanny administrative skill shewn in the proposals for the new Education Bill of 1902, and subsequently on committees of the L.C.C. and the School of Economics, combined

* *Eleanor Rathbone* by Mary D. Stocks, Gollancz, 21*s*., and *The Webbs and Their Work* edited by Margaret Cole, Muller, 15s.

with all the activities so fully recorded in *Our Partnership* prove that the Webbs, although they were specialists, and according to Leonard Woolf like " nearly all great specialists had to narrow the range of their vision ", lived a fuller and more successful life in its impact upon society than any reformers of their generation or the succeeding one. In fact, Leonard Woolf compares them with Darwin, and Kingsley Martin with Jeremy Bentham; and Mrs. Cole is to be congratulated on so selecting her contributors that not only is the canvas wide enough for the composite design, but room has been found for recording the very human qualities of the Webbs. The picture—due largely to H. G. Wells in *The New Machiavelli*—of a couple devoid of humanity or of any interest in human beings except as robots to be manipulated by the state is laughable to all those who enjoyed their friendship, their enchanting gossip and their interest in the younger generation, whether members of Beatrice's family, of the Fabian Nursery, or children of their friends.

A straight biography

Eleanor Rathbone is a straight biography written by Mrs. Stocks, her friend and colleague in the campaign for Women's Suffrage and Family Allowances. It successfully avoids the pitfall into which such biographers usually stumble, of an uncritical approach to the subject's activities, and Mrs. Stocks does not try to hide mistakes which Eleanor—like most people—made in her approach to some matters. But, beginning with an account of the Rathbone family as it emerged in Liverpool in the mid-eighteenth century, Mrs. Stocks shews what Eleanor inherited as a legacy of public service, and how much she owed to her own father with whose social work in the city she was closely connected after she came down from Oxford in 1896. How faithfully she carried on this tradition of voluntary work in Liverpool, on the City Council particularly concerned with housing in the inter-war period, in the campaign for women's suffrage and then for the removal of the disabilities of the sex, and in Parliament as Member for the Combined Universities, is told in these pages with a clarity and skill which obscures the difficulty the writer must have had in keeping separate tracks of Eleanor's various activities, many of which she carried on simultaneously. Representation of Indian women, child marriage in India and in Africa, correspondence with Nehru about the attitude of his party to England during the War,

concern for Abyssinia, Spain, and the stream of refugees from Hitler's Germany that began in 1933 and continued as Displaced Persons until after her death, and which formed her chief preoccupation during those last thirteen years, are all described. The mainspring of all her work was her passion for the liberty of the individual, whether women deprived of the vote, mothers refused the tools which they needed to do their job, or Jews and political refugees deprived of the right not only to speak freely but to live and work in their own country. Her decision to give up philosophy, which she had studied with credit at Oxford, for practical social work, which was the introduction to her public life, shewed that her inheritance of the best that is meant by the liberal spirit of the nineteenth century was stronger than her enjoyment of metaphysical speculations.

Background

Why is it interesting to compare these two books? Because they depict the life and work of two or three people, who lived approximately at the same time (Eleanor was ten years younger than the Webbs and lived a shorter life), who gave up their lives to public work, and who both left marks although of unequal size on their times, There were some striking similarities between them and many differences; and although their work only overlapped in the sphere of family allowances, they were subject to a certain extent to the same influences.

To take their similarities first. Both Beatrice and Eleanor came from the same background, that of the north country nonconformist, well-to-do middle class—product of the industrial revolution. The Rathbones of Liverpool and the Potters of Manchester felt the same personal concern for conditions of life in their cities, where they lived and built up their fortunes, and for the wider questions of reform of Parliament, anti-slavery and anti-Corn Law agitations. Eleanor inherited directly from her father, an M.P. and a member of the Liverpool City Council, and Beatrice indirectly from her grandfather Richard, and her grand uncle Thomas Potter, first Mayor of Manchester and chief architect of its incorporation. Both Beatrice and Eleanor had enough money to enable them to devote their lives and substance to public work and never to have to worry about finance. In the case of Beatrice, this exemption covered Sidney also. They were alike too in not

having families or domestic ties that made any claims upon them. They were free and they showed magnificently what could be done with such freedom. Different though the two women were in temperament and personality, they both believed in the scientific approach to social problems. In this Eleanor, as the younger, was probably influenced by the work the Webbs were doing through the Fabian Society and by their studies of the national minimum, when she gave up metaphysics for social work. Beatrice worked with Charles Booth and carried out a personal investigation into sweated labour in the East End, and it was his technique of enquiry that undoubtedly influenced Eleanor also, when she made her enquiry into dock labour in Liverpool. This was followed by pamphlets on *How the Casual Labourer lives* (1909), *Conditions of Widows under the Poor Law* (1913), and *Soldiers' and Sailors' Allowances* (1914), the two latter containing the germ of the idea of family allowances which she developed fully in the brilliant study of the economics of family life, *The Disinherited Family*, published in 1924.

Both Eleanor and the Webbs believed in and carried out the method of permeation in order to get their reforms. Eleanor, an Independent both as a member of the Liverpool Council and as a Member of Parliament, worked with members of all parties for women's suffrage, removal of sex disqualifications, refugees, family allowances. The Webbs, although avowedly Socialists, were extraordinarily successful in permeating first the Liberal and Conservative parties, and later the Labour party. Eleanor, who exploited to the full the method of the parliamentary question, and became very successful in getting what she wanted, gave some practical advice to other fighters. " While in this matter, you must practise the pertinacity of the importunate widow, you must also practise the patience and perseverance of Bruce's spider who climbed up fifty times and dropped down again before it reached its goal. Don't expect a quick and complete success. Take everything that is offered you, and keep on clamouring for more until you get something really satisfactory." Certainly the Webbs would have agreed.

Both Sidney and Eleanor had been members, and very successful members, of local authorities and both later became M.P.s; but this period of Sidney's life was the least successful, whereas it was as an M.P. that Eleanor did some of her most immediately important, though perhaps least lasting, work.

Similarities in methods and beliefs

They were both propagandists; but whereas the Webbs only ventured into that field once when they ran the campaign for the break-up of the Poor Law, which did not lead directly to success —although the ideas worked their ferment and finally triumphed— Eleanor spent most of her life in propaganda for one cause or another. Scientific research into society, and particularly into the institutions of society, was the mainspring of the Webbs' work, not that intense single belief in a cause which makes the successful propagandist, as was the case with Eleanor.

They both believed in freedom of thought, although Eleanor far more passionately than the Webbs. She hated totalitarianism of the left equally with that of the right. People who only knew the Webbs towards the end of their lives, when their enthusiasm for the Soviet Union seemed to belittle a belief in political freedom, overlook the fact referred to by Lord Beveridge in his article on " The London School of Economics " that they never allowed their own political views to affect the appointments to the staff of the School. The first four directors, all in effect chosen by Sidney, consisted of two who later became Conservative M.P.s—Hewins and MacKinder— Beveridge, a Liberal, and only one—Pember Reeves—who was in any way a Socialist. In the Articles of Association of the School, Sidney entrenched a fundamental principle : " that no teacher in the school should suffer any disadvantage merely for the holding or expression of any opinion whatsoever ", and even further, " no religious, political, or economic test or qualification shall be made a condition for or disqualify from receiving any of the benefits of the Corporation, or holding any office therein."

The last point of similarity is perhaps the greatest. None of the three cared one iota for personal credit. So long as their objects were achieved, anybody could have the praise. So much for their similarities, what of their differences ?

Differences of temperament and training

Temperamentally, Beatrice and Eleanor were very different. Or at least we can say that Beatrice did not allow her emotions to affect her work, whereas in Eleanor's case, they were the source of her activities. Whereas it can be said that Beatrice planned everything, Eleanor planned nothing, and planning as in Socialism did not attract her. She dealt with a succession of individual problems as

they roused her reaction to what she called " unsuspected obligations " of a responsible citizen of this country and of the Commonwealth. One cannot help feeling as one reads of the many " causes " —home, colonial, Indian, Palestinian, etc.—which she sponsored during her sixteen years of parliamentary life, that she dissipated her energies. The Webbs, on the other hand, owed their extraordinary achievements to the fact that they kept within the sphere of home affairs. Leonard Woolf points out that " problems of imperialism, international relations, and war and peace, of the passion for power, the belief in democracy and liberty and equality, the ideas, ideals, delusions of nationalism, and nationality " were outside the Webbs' interests. Even if one can call such concentration a " narrowness of outlook ", to have " discovered and explored a whole new province of vital importance in sociology " could not have been done by someone who like Eleanor put no bounds to her sympathies, which meant in her case actions too. " Whatever ought to be done, can be done " was her ruling principle. Leonard Woolf points out that Darwin had to sacrifice his appreciation of music in order to produce *The Origin of Species*, and that " the Webbs devoted to the study of social institutions the same kind of unremitting concentration." There is no doubt that in our complicated civilisation, concentration of effort is essential if big results are to be achieved.

Eleanor was a university graduate. She read Greats at Oxford, and in spite of a faulty earlier education, only just missed a first class in that most exacting of Final Schools. Beatrice did not go, and indeed could only barely have gone, to a university if she had wished to do so, and no such idea seems to have occurred to her. Margaret Cole attributes the differences that arose between the Guild Socialist Fabians and the Webbs partly to the fact that the Webbs had not, and the Fabians mostly had, had a university education, so that the Webbs had " no experience of prolonged and eager discussion of doctrine ". But the years that Beatrice had spent in discussion with Herbert Spencer, and later working with Charles Booth, surely provided a rich alternative. Even if Beatrice had gone to Cambridge or to Oxford, she would not have found a satisfactory course of study for one who was already convinced of the " application of reasoned knowledge to human relations ". Political Economy was purely abstract and divided from sociology; and the fact that by the time she was thirty she had, according to G. D. H. Cole, formulated

a theory of values of her own, does not suggest that a university could have taught her much. Mr. Hewins, the first Principal of the School of Economics, quoted by Lord Beveridge, said that he had never worked with two people " so indifferent to the ordinary prejudices to be found in academic circles as Mr. and Mrs. Webb". This reminds us that a university education is not necessarily an essential even to founders of an academic institution.

Suffragist and anti-suffragist

Finally, Eleanor was a strong suffragist and feminist, and Beatrice was for many years an anti-suffragist, although she recanted during the suffragist agitation. But she was never a feminist, although few feminists did more for their cause than she by her achievements, as a writer, researcher, member of a Royal Commission, and of Departmental Committees. Eleanor put most of her energies, before she herself entered Parliament, into helping to solve women's problems; and her belief in family allowances arose not only from her scientific study of the cause of poverty in families, but from her desire to raise the status of the mother. When the principle of family allowances had been accepted, she had a final battle to get them paid to the mother, not to the father. It was after an interview on this point that a senior Civil Servant later explained his department's capitulation by the remark, " They were impressed by her vehemence ". Those who remember the section in *The Disinherited Family* called " The Turk Complex " will understand her vehemence—which Beatrice would never have shared.

An attempt at a comparison

We are still too near the subjects of these two books to see them in their proper perspective, but there can be little doubt that we should agree with Eleanor's biographer that *The Disinherited Family* can be compared with Keynes's *Economic Consequences of the Peace* for its " rare combination of passionate conviction, intellectual grasp and terse literary exposition ". The campaign for family allowances is, however, the only part of her work that will survive when the memory of her fight for justice and liberty for all people in all parts of the globe is forgotten. She carried the torch of freedom when the surrounding gloom was thicker than it had been for over a hundred years, and did more than any other of her contemporaries to uphold the best British tradition of help for political refugees.

But the Webbs not only founded the first institution in this country devoted to the study of economics and political science, but, by the combination of the scientific study of social institutions with their work as practical politicians, have left a permanent mark on their times. " Their effect upon social evolution in the twentieth century " writes Leonard Woolf " was as powerful as Bentham's had been in the nineteenth ".

The Chairman of the Council of Manchester University, in a speech to the Court last November, pointed out that the Government, through committees such as the Goodenough committee on medical education, the Barlow committee on the expansion of the universities, the Clapham committee on the social sciences, and the McNair committee on the training of teachers, is influencing both the scope and the trend of university developments. Are the universities satisfied to leave the initiative to outside bodies? Is this what we mean when we talk of " the reaction of the universities to the demands of society "? Can we count on an unceasing supply of Webbs to watch over the interests of society? Inherited wealth, which made possible the work of these three people, is fast passing away, and in view of the fact that so few of this type of wealthy persons used their means for public and not private purposes, we cannot regret its disappearance. We must, however, look to the universities to which access is now so much easier than it was fifty years ago to produce the Webbs of the future.

REVIEWS

THE PUBLIC SERVICE AND UNIVERSITY EDUCATION. *Edited by* JOSEPH E. MCLEAN. (*Princeton University Press, London, Geoffrey Cumberlege*, 21*s*.)

This book consists of a series of essays by fifteen eminent persons, including two Englishmen, Sir James Grigg and Professor E. L. Woodward, all of whom had taken part in the Princeton Bicentennial Conference on University Education and the Public Service, held in November 1946. The book was published in 1949; but the essays are undated, though they bear internal evidence of having been written in 1947 or early 1948. Thus neither of the English contributors refers to the re-opening in 1948 in this country of the British Normal Open Competition for the Administrative Class and the Foreign Service, nor is there any mention of the Report published in February 1949 of the Hoover Commission on Organisation of the Executive Branch of the Government, of which two of the present essayists, Arthur Flemming and the late James Forrestal, were members. Readers who wish to see how far the present volume has influenced official action, are advised to study the Hoover Commission's Report on Personnel Management, with the relevant Task Force Report on Federal Personnel.

To the British student of public administration, the chief interest of the present volume lies in the conflict of American opinion between those who favour the creation in the Federal Civil Service of a class of "generalists", or administrators as we should say, recruited from the best young university graduates and assured of a permanent career in the Service, with prospects of promotion by merit up to the "top management" posts under the political Secretaries (or Ministers), and those who oppose this idea, either as unnecessary, or as un-American, or as desirable but impracticable. In favour of the former, that is the British practice, we have in this volume the carefully reasoned judgment of Rowland Egger (who quotes the passage in which the Commission of Inquiry on Public Service Personnel in 1935 advocated a top-to-bottom scheme of re-organization, which clearly reflects British practice), and the weighty recommendation of the late James Forrestal, based on his own experience when he came to the Department of the Navy in 1940 and found there was no high ranking civilian official to whom he could turn for advice. Both these writers emphasize the beneficial effect

which such a reform of the public service would have on the American universities—" the terrifically sobering effect " as Rowland Egger (himself on the faculties of two universities) calls it. " The erection of definite objective standards of comparison will inevitably affect profoundly our attitudes towards both content and teaching methods. Such a change could not come too soon " (p. 233). One recalls the remarks in the famous Northcote-Trevelyan Report of 1853: " Such an inducement " (*i.e.* an open competitive examination in which success would depend on proficiency in any of the main subjects studied at the universities) " would probably do more to quicken the progress of our universities than any legislative measures ". And Mr. Forrestal, after comparing " the broad cultural and scientific training ", on which the British have relied, with the specialised education for the public service, which is characteristic of French and German and indeed, as this volume constantly reminds us, of American practice, concludes: " I believe the broad general training is preferable ".

On the other hand the book reveals an impressive body of opinion which questions the need for an administrative class in the Federal Civil Service at all. For example, Lewis Miriam sees no room for the experienced administrator between the politicians on the one hand and the professional and technical class on the other. Dean Paul Appleby naively assumes that an administrative " class " can only spring from a " class conscious " society such as the British, and would prove a failure in " a more volatile, a more rough and ready, a less disciplined society " (pp. 181–2); while H. Struve Hensel, in spite of his belief that " on balance the advantages (of the British system) would far outweigh the disadvantages ", is forced to " doubt whether the American people would accept a permanent administrative group secure from reprisals at the polls " (p. 90).

The attitude of this latter group towards the question of university education in relation to the public service is not very clear. Phrases such as " to increase the supply of competent men whose education fits them to be policy makers or advisers to policy-makers " do not take us very far. But, broadly speaking, these thinkers seem to favour a more deliberate concentration by the universities on the training of potential administrators in the social sciences and of potential foreign servants in international relations, political, economic and social.

Such an attitude is of course quite foreign to British thought and

practice. Our Civil Service Commissioners prefer to follow the trend of university education, not to lead it, and endeavour so to arrange their written examinations for the Administrative Class that a student in any one of the main university honours schools should be able to select all his optional subjects from within the range of his normal degree studies, no matter what these may be. Let candidates by all means be interested in the social sciences or international relations; but let them choose for their degree whatever branch of liberal education best suits their individual talents.

Several of the present writers lay stress on the need for greater facilities for university research into problems of public administration. Here certainly we have much to learn from American practice. We have the P.E.P. and Chatham House studies; and at the universities a start has been made in the field of domestic administration by the Gwilym Gibbon Trust Fellowship at Nuffield College. But there is ample room for more; and at no time was there a greater need of research, by disinterested and truth-seeking scholars, into the manifold social and economic problems which perplex us today.

A. P. WATERFIELD.

LANDSCAPE INTO ART. *By* KENNETH CLARK. (*John Murray*, 25*s*.)

Sir Kenneth Clark's choice of landscape painting for the subject of his first lectures as Slade Professor at Oxford, a professorship which Ruskin intended should endeavour to "make our English Youth care somewhat for the arts", was a happy one. Almost every Englishman is moved by the beauties of landscape and so possesses already a natural enthusiasm for the painter's object. Further, the art of landscape painting being so immensely significant in the nineteenth century provides one of the best introductions to the art of our own day.

No one need be deterred by the fact that this book is based on lectures. It has a sustained flow which makes the reading of it both a pleasure and an adventure. A pleasure in that it has such shapeliness in the writing; an adventure in that the more pedantic treatment of the subject chronologically has given place to a study of four ways in which landscape has been expressed as a pictorial unity—by descriptive symbol, by statement of fact, by the creation of fantasy and by the belief in an ideal world of intellectual order. If the sequence of the illustrations occasionally recalls the lecture-

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room it is, on the whole, a gain, since added force is given to the contrasts and greater emphasis to the point. These illustrations, one hundred and sixteen in all and mostly full page, are gathered together at the end of the text and range from Hellenistic fresco to Piet Mondrian.

The book does not pretend to be a history of the art of landscape painting. Nor will the reader find the weight of emphasis disposed in the way that would be expected in such a history; Canaletto and Guardi, for instance, are dismissed in a paragraph. It deals with aspects of the artist's response to nature, and where a painter has been too much concerned with artifice his name is unlikely to appear.

In his own medium of words, Sir Kenneth treats his subject with masterly breadth of handling. The ground is indicated surely, the salient features treated in sufficient detail to establish a correct perspective, and innumerable paths for further exploration suggested. The book abounds in statements that arrest the attention and cause the reader to reflect on wider issues, as in the following quotations. " Unwelcome as the idea must be to those who follow M. Valery in regarding Leonardo as a pure intelligence, I think it can be demonstrated that the direction of his scientific researches was generally established by his aesthetic appetites." And from another section—" As so often happens, art anticipated intuitively what science was beginning to formulate ". Such statements provoke thought far beyond the boundaries of the immediate subject and this process is an indication of how successful the author has been in his primary aim. The reader will discover that he is " caring ".

The chapters on Landscape of Fantasy and Ideal Landscape are particularly valuable and contain passages of illuminating writing on Leonardo, Giorgione and Poussin. It is interesting to compare the section on Impressionism with that on Turner's work. The sensational aesthetic of Monet and Turner's late manner resulted in the disappearance of " things "; they both approached colouristic abstraction. Monet's late work is shown to have led to disintegration, but of Turner's apparently similar abstractions the author writes: " in some inexplicable way, they give a more vivid feeling of nature than do his earlier works in which the shapes and colours of nature are so minutely described ". This heightened sense of nature in Turner's late work remains one of the profound mysteries in the art of painting.

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patiently and with such single-mindedness, and of his suitability for his usual role as initiator of the later annihilation of nature. On the latter point Sir Kenneth appears to support the view that he has been tragically miscast.

The Epilogue briefly summarises the themes that have been developed and an attempt is made to analyse the technical and philosophical reasons for the decline of landscape during the last fifty years. Here the general picture is one of gloom and many will sigh with nostalgia for Stefano da Zevio's garden of innocence. The author ventures the suggestion that the persistence of " the pathetic fallacy " of the unity and stability of the natural order and " the use of landscape as a focus for our own emotions " provide the surest hope for the continuance of the art of landscape painting.

When Sir Kenneth Clark writes of paintings we are not only conscious of scholarship and an intellectual appreciation but also of a deep affection which transports the reader from the world of facts and dates and materials to the inner realities of motive, vision and realisation. He writes " facts become art through love " and it is his understanding of this process and its appearance in his writing that gives this book its great quality and value.

MAURICE DE SAUSMAREZ.

VICTORIA UNIVERSITY COLLEGE: AN ESSAY TOWARDS A HISTORY. *By* J. C. BEAGLEHOLE. (*New Zealand University Press*, 15*s*.)

This book is well worth reading for anyone interested in university development, but it is too long and detailed to give an easily assimilable picture of the growth of Victoria College.

It is necessarily very largely a record of rather trivial happenings especially in the field of student activity. Seldom in a university history can so much space have been given to the student periodicals. The College got away to a good start so far as men were concerned, but for many years it had to struggle along practically without endowment and with very niggardly support from the Government. To the administrator of a British university, accustomed to full-time students and the enlightened patronage and guidance of a University Grants Committee chiefly composed of members with considerable university experience of one kind or another, it is amazing that so much was accomplished under the handicap of Ministry of Education control; a Council largely composed of men without university

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experience at all; a student body mainly part-time; and puny financial resources. The College was, however, always fortunate in having men of distinction, loyalty, and zeal on its staff. Laby and Picken, the leaders of the reform party in the first quarter century, were destined to make their mark in another larger university as well. Anyone who served in Melbourne in the thirties will appreciate the remark that " Picken gave the impression that he thought he was a tactful man ", and the reference to Laby's " gadfly persistence and irreducible minimum of conscience ". After the stirring report of the fight for reform it is surprising to find the Report of the Reichel Commission dismissed in a few words. One aspect of the history which is of general interest is the account of the antagonism engendered between City and College through the political activities and pronouncements of students.

The New Zealand Colleges have achieved academic freedom the hard way. One gathers the impression that Wellington in particular did not want a University College, and that its people have only recently come to value it. It is the more creditable that so many good graduates have been educated there and that at long last research is beginning to occupy its proper place as a university activity. Freed from the control of the external examiner and valued properly at last by the community it serves, the course of Victoria College is clear today as it was not in the past. The main danger of the immediate future is indicated by the author when he refers to the attraction exercised by universities outside New Zealand upon the pick of the College staff. This has been intensified by the proliferation of university institutions throughout the Commonwealth. Air transport makes transfer more easy too. The threat will become greater still unless New Zealand can bring her salary scales into closer relation with those of universities in Britain and in Australia; and it is difficult to see how, with four university-type institutions to two million people depending chiefly on primary industry, she can afford to do this. R. E. PRIESTLEY.

INTRODUCTION TO THE STUDY OF LITERATURE. VOLUME ONE: POETRY. *By* LIONEL ELVIN. (*Sylvan Press*, 10*s*. 6*d*.)

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There has been so much stress, so much striving after eternal verities (psychological or other), so much regarding poetry as an instrument for procuring some other value, religious, philosophical, political —apart, of course, from treating it as a sub-department of sociology or brute material for the " historiography " of ideas—that to find an essay in which the eye is kept on the object for its own sake brings a welcome sense of refreshment. Indeed a sense of freshness pervades the whole book, in its approach, its manner, its style. Although the Principal of Ruskin College is obviously familiar with the language and method of criticism since Dr. I. A. Richards, there is no trace of jargon. It might even be said that the phrasing is deceptively simple, and may possibly deceive some readers into believing that because it is designed for the W.E.A. level it is too simple for universities. In reality, all the points that need be considered by the generality of readers are indicated here, and many of them are discussed.

The way in which Mr. Elvin has tackled the problem of an " Introduction " itself gives the pleasure of surprise, possibly because we are likely to take up the book as an introduction to poetry, whereas it is what it says it is, an introduction to the study of poetry, in fact an essay in method. He makes no vain attempt to cover the ground, but takes three kinds of poetry, Milton's, Wordsworth's and Mr. Eliot's, which he calls " for convenience " the stylised or artificial; the simple or natural; and the impressionistic; (some may regret the absence of a distinctively " metaphysical "). He is, of course, perfectly alive to the obvious objections to these labels, so never tries to gum one on to a poem: he never distorts for the sake of a theory or preconception. But the labels will serve; and, using them as a general indication, he discusses how each poet gets his effects, all the time maintaining a very nice critical judgement, never wilfully unorthodox, but always blithely independent.

In treating of rhythm, imagery, and the other constituents of poetry as such, Mr. Elvin goes to other poets for similarities or contrasts—Donne, Keats, Edward Thomas; and when in a later chapter he discusses Criticism and Biography, Beliefs and Poetry, and Difficulty and Poetry, he finds it useful to bring in Hopkins's " Carrion Comfort " and Yeats's " Byzantium ". Here, as in his previous chapters, he maintains an admirable sanity, illustrating his own final saying that " to achieve magnanimity without blunting the edge of discrimination must be the aim of the good critic."

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"If," he adds, "he achieves it, he will be an authority, not only on literature, but also perhaps on life." That is a profession of faith implicit in the whole book. It is, we might add in this magazine, the justification for the study of literature as a discipline in its own right.

No one, least of all Mr. Elvin, will claim that this is an epoch-making work: but it can be said that it does admirably what it sets out to do, that is, establish on a secure basis any reader's thinking about poetry. It can be said that the instruments Mr. Elvin uses are those of the liveliest criticism of the last quarter of a century, as developed by the Cambridge school: he forges no new weapons of his own, but gracefully uses those fashioned to such good purpose by other people, plies them with so familiar an ease as to make us forget that they once had to have distinctive if slightly misleading names. He does not use these instruments to a greater extent than they can be commonly used—he does not press "practical criticism", nor sport with those types of ambiguity that murmur "we are seven": but nobody unfamiliar with or disrespectful of their implications could have written the book. Naturally here and there judgements are made with which each reader will disagree—for myself they are few—but the issue is always beautifully clear-cut, and the steps to the statement perfectly plain. Too clear-cut, too plain, some may think: but you can offer the book to the erudite without being insulting, and to the ignorant without a hint of patronage.

BONAMY DOBRÉE.

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As he brings his studies down towards the present day, a more personal note is heard in Professor Willey's work. There was something of it in the final chapter of *The Eighteenth Century Background*, and there is more in the present volume. He conveys the feeling that it is *his own* problems that these men are facing, and an incidental interest of the book lies in piecing together the author's own beliefs both from *obiter dicta* and from more pervasive qualities of tone and emphasis. Religion occupies much of the picture, and the one writer whose religious position does not receive even mild criticism is Matthew Arnold. The sketch of his views brings out with unusual clarity how close he is to being an Anglican Loisy or Tyrrell, and Professor Willey seems oddly unaware how alien such

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Modernism is to the temper of present-day Protestantism and Catholicism alike. Arnold may still have a message, but one would have expected a clearer recognition that few in fact now see the problems involved as he saw them. Mill, by contrast, is sternly taken to task not only for the conclusions and presuppositions of his essay on *Theism*, but, it would appear, principally for discussing Natural Theology at all as the rational discipline which it has habitually been for traditional Christianity.

The chief interest of the book, however, lies in its mapping-out of some of the difficult territory of nineteenth century intellectual life, and here it is genuinely helpful, though historiography receives surprisingly little attention. Mill, I think, is (for the level of analysis on which this book moves) more intellectually coherent than Professor Willey allows. And though he does his best for Carlyle, the arrogant yet evasive bombast which all but smothered his shrewd peasant insight cannot be made to appear anything but repellent. Coleridge is capably discussed, but the account of imagination is less enlightening than that in D. G. James's *Scepticism and Poetry*, to which reference might with advantage have been made.

It is in the chapters on George Eliot that the limitations of this kind of study become more apparent. No doubt she is a representative figure, but we should not want to read so much about her if she were not also a great novelist, and even a non-literary study of her calls for a keener response to literature than Professor Willey convinces us that he is capable of. The unreliability of his literary tact makes itself felt in some curiously jarring passages: " What a piece of work is Mill ! The steam-engine radical, frightened at his own progress, whistling for the flowery meadows, his power-loom prose booming out the sentiments of Rousseau or D. H. Lawrence ! " Eliot's lines in *East Coker* are garbled into: " each poem must be 'a fresh start and a fresh kind of failure'." And Arnold would scarcely be grateful for the " adaptation " of his phrases which results in saying that he " applied a fusion of sentiment and intellect to the main trends of the modern world." These lapses into jocularity and journalese are not very frequent, and it may be unfair to pick them out. But I find them worth offering as evidence for the contention that a satisfying as opposed to a merely useful book on this difficult subject would have had to come from a writer whose perceptions were both keener and more delicate.

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